

**Proceeding of International Conference  
on The Law Development For Public Welfare**

**ISSN 2798-9313**

Topic: Human Right Issues of Artificial Intelligence (AI) Gaps and Challenges, and Affected Future Legal Development in Various Countries

**The Urgency of Regulating Artificial Intelligence in Civil Law as an Instrument of Protection and Liability for Private Legal Subjects in Indonesia**

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**Abstract.** *Artificial Intelligence (AI) has emerged as a pivotal technology in the modern era, revolutionizing various aspects of our lives. AI refers to the capability of machines to mimic human intelligence, encompassing tasks such as natural language processing, pattern recognition, and decision making. This abstract explores recent advancements in AI especially within law perspective. Artificial Intelligence also presents practical applications of AI across diverse economic industries, ranging from automotive and healthcare to finance and entertainment. Furthermore, AI has to regulated by law for maintain from risks, including concerns regarding privacy and ethics. While AI offers immense potential for innovation and efficiency, but in cyberspace has a various threat so that crucial to secured by law from cybercrime in cyberspace. Private law regulation in AI for long-term has implications and ensure that its use brings balanced benefits to society as a whole.*

**Keywords:** *Artificial; Cyberspace; Intelligence; Law; Private.*

## **1. Introduction**

Indonesia is a country based on law in its operational processes. As a Rechtsstaat, the continuation of the state is surrounded by binding and compelling norms to provide certainty and security for all Indonesian citizens. Legal norms in a narrow sense can be manifested through regulations (regelling) that have the authority to provide binding boundaries to maintain order in society.

In this digital era, there are various technological developments that are not yet regulated by law, resulting in a vacuum of law within the legal system of a country. This legal vacuum leads to the absence of a clear legal basis for the state to take action against certain events occurring

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in society. This is based on one of the principles of criminal law, *Nullum Delictum Noela Poena Sine Praevia Lege Poenali*, which means that there is no crime without a prior binding regulation. This is also reflected in the general principle of civil law called *Pacta Sun Servanda*, which means that a (legal) agreement is binding on all parties. Therefore, efforts are needed to fill the legal vacuum.

The legal filling effort is a concrete response to the progressive regulations of modern technology.<sup>1</sup> Artificial Intelligence (AI) technology is a cutting-edge technology in the current era that still lacks comprehensive national legal regulations.

Artificial Intelligence (AI) is the field of computer science dedicated to solving cognitive problems typically associated with human intelligence, such as learning, creating, and recognizing patterns. Modern organizations collect massive amounts of data from diverse sources, such as smart sensors, human-generated content, monitoring tools, and system logs. The goal of using AI is to create self-learning systems that derive meaning from data. Subsequently, AI can apply this knowledge to solve novel problems in ways analogous to humans. For instance, AI technology can respond to human conversations in a meaningful manner, generate original images and text, and make decisions based on real-time data input. In Alan Turing's seminal 1950 paper, "Computing Machinery and Intelligence," he contemplated whether machines could think. In this paper, Turing first coined the term artificial intelligence and presented it as a theoretical and philosophical concept.

Between 1957 and 1974, advancements in computing allowed computers to store more data and process information faster. During this period, scientists further developed machine learning (ML) algorithms. Progress in this field led research agencies like the Defense Advanced Research Projects Agency (DARPA) to dedicate funding for AI research. Initially, the primary objective of this research was to determine whether computers could replicate and translate spoken language. During the 1980s, the increased availability of funding and algorithmic tools used by scientists in AI development made development more efficient. David Rumelhart and John Hopfield published papers on deep learning techniques that demonstrated that computers could learn from experience.

From the 1990s to the early 2000s, scientists achieved many core AI goals, such as defeating the world chess champion. With more computational data and processing power in the modern era compared to previous decades, AI research is now more common and accessible. AI is rapidly evolving into artificial general intelligence so that software can perform complex tasks. Software

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can create, make decisions, and learn on its own, tasks that previously could only be done by humans.

All forms of sophistication in AI must be based on laws that govern every legal action carried out by AI in order to uphold security in the Indonesian civil cyberspace.

## 2. Research Methods

The research problem in this study uses a normative legal research method, which uses secondary data types where the data is obtained indirectly, including primary legal materials. The data obtained is then collected through a documentary study or literature study data collection technique by collecting data based on legal materials that have been used in this study, and analyzed using qualitative data analysis techniques. As the purpose of the research is one of them as a prediction, to provide a description of the findings that are then obtained in this study and also to find the correct conclusions that can be scientifically accounted for.

## 3. Results and Discussion

### 3.1. Artificial Intelligence in Civil Law

Civil law is a law that regulates interpersonal relationships that have a regulatory character with the aim of protecting individual interests. In a formal legal sense, the Civil Code consists of 4 (four) books, namely Book I regulates about people (van Perrsonen) from Article 1 to 498, Book II regulates about objects (van Zaken) from Article 499 to 1232, Book III regulates about obligations (van Verbintenissen) from Article 1233 to 1864, and Book IV regulates about evidence and statute of limitations (van Bewijs en Verjaring) from Article 1865 to 1993. However, based on the systematics of legal science, the systematics of civil law is divided into personal law (personenrecht), the second part on family law (Familierecht), the third part on property law (Vermogenrecht), and the fourth part on inheritance law (Erfrecht).

The application of civil law in Indonesia was inseparable from the significant influence of the liberal political forces in the Netherlands, who sought to make fundamental changes in the colonial legal system. This policy is known as *de bewuste rechtspolitiek*.<sup>4</sup> Based on the principle of concordance the codification of Dutch civil law became an example for the codification of European civil law in Indonesia. The codification of civil law was ratified through the Royal Decree of April 10, 1838, *Staatsblad* 1838 No. 12, which came into effect on October 1, 1838.

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Through the announcement of the Governor-General of the Dutch East Indies on December 3, 1847, it was declared that the B.W. (Burgerlijk Wetboek) would be in force in Indonesia from May 1, 1848.

The following are translations of the key principles in the Indonesian Civil Code (KUHPerdata) that are essential in every contractual relationship, Principle of freedom of contract, Principle of consensualism, Principle of good, Principle of binding force, Principle of equality before the law, Principle of balance, Principle of legal certainty, Principle of morality, Principle of reasonableness.

There are several regulations that apply and are regulated outside the Civil Code, for example in the field of land, namely Law No. 5 of 1960 concerning the Basic Agrarian Regulations known as the Basic Agrarian Law (UUPA), Marriage Law known as Law No. 1 of 1974 concerning Marriage, etc.

As time progresses, it is only natural that the law should follow suit in order to provide security and legal certainty for all members of society. Legal progressiveness must always be created, especially in the realm of digital technology, which often develops faster than the law itself. One of the urgent legal products that the government should consider is the incorporation of elements of technology law into civil law in Indonesia. This is very important because, upon further analysis, there will be a legal vacuum that needs to be filled by relevant legal products.

### **3.2. The Liability of Artificial Intelligence in the Civil Code**

In the Civil Code, there are two types of legal liability: liability for unlawful acts and liability for breach of contract. Therefore, the main discussion that will be covered in the following discussion is what form of liability can be imposed on Artificial Intelligence when an event occurs that causes damage due to the fault of Artificial Intelligence itself, resulting in an unlawful act, and based on contractual liability, resulting in a breach of contract.

Before delving into the main topic, it is important to understand that in the case of liability for unlawful acts based on the Civil Code in articles 1365 and 1366, the principle of liability based on fault applies. This indicates that the party making the claim must prove the existence of fault so that the claimed damages can be granted. In addition, the principle contained in Article 1365 of the Civil Code also applies to liability based on breach of contract. Therefore, if the element of fault cannot be proven, there is no liability, which can also be referred to as "liability based on fault.

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When discussing the concept of legal accountability in relation to the use of Artificial Intelligence technology, the first question that arises in our minds is whether this system, which appears to "make decisions on its own" without human intervention, should be held responsible for the consequences of its own decisions. Considering that Artificial Intelligence does not have the same humanistic characteristics as humans, as explained in the previous paragraph, it is clear that the legal status of AI cannot be equated with that of humans.

In essence, the legal subject and the one who can be held accountable is a "natuurlijk persoon", which is a human being. However, due to legal developments over time, public and private institutions have been recognized as "badan hukum" (legal entities). This has resulted in entities that were initially not recognized as legal subjects now becoming part of them, representing a significant development in European law. These legal entities also include non-human legal subjects who have rights and obligations. Therefore, it is more appropriate to compare Artificial Intelligence to legal entities, as AI can also perform legal acts and have rights and obligations.

The consequences of AI being able to perform legal acts then give rise to rights and obligations. The exercise of a legal right and obligation always requires legal responsibility. As seen in the case reported by Tempo magazine on February 27, 2018, the well-known law firm, Baker McKenzie, introduced Artificial Intelligence (AI) to analyze legal documents more quickly. The algorithm created by the legal platform called Law Geex managed to beat 20 experienced lawyers in the USA in reviewing five business contracts.

Therefore, the analysis process carried out by the AI created by Law Geex is a unilateral legal act that then gives rise to rights and obligations. A legal act is any human act carried out deliberately to give rise to rights and obligations. The consequences of the rights and obligations arising from the results of the AI analysis will mainly arise if its conclusions are used as recommendations for users. The use of these recommendations will certainly have legal consequences for both AI and users.

The liability arising from the above case can be classified as civil liability. In analyzing the form of liability of the legal subject, we can refer to articles 1367 paragraphs (3) and (1), and 1368 using an analogical interpretation. This analogical interpretation is used to discover the law regarding a general rule and ultimately to explore the principles contained therein.

Based on Article 1367 paragraph (1), we can analogize that the relationship between the owner of AI and AI is a relationship of liability. A liability relationship is a relationship in which a person is not only responsible for his own actions but also for the losses caused by the actions of

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persons or goods under his responsibility. Thus, in this case, if AI is recognized as a legal subject and then commits an unlawful act, the owner of the AI can also be held liable in civil law for the losses caused by the AI. This is because the AI is the responsibility of the AI owner.

This aligns with Law Number 19 of 2016 concerning the Amendment of Law Number 11 of 2008 concerning Electronic Information and Transactions, Article 1 paragraph (8) which reads: "An electronic agent is a device of an Electronic System that is designed to perform an action on certain Electronic Information automatically organized by a person." This means that a person who organizes the device of this AI is a legal subject and is bound by legal liability. Thus, it can be concluded that the Indonesian ITE Law also agrees that legal responsibility for AI will be borne by the organizer who provides services from the AI.

Meanwhile, Article 1367 paragraph (3) is a form of the concept of liability for employers and employees who represent the affairs of their employers. If analogized, AI as a legal subject is an employee who receives work from the employer (the owner of AI). Thus, if the AI commits an unlawful act, the employer (the owner of the AI) can be held accountable. This is because the owner of the AI in the implementation of the system it creates must be safe and reliable. So that all legal consequences caused by AI will be the responsibility of the owner of the AI, provided that the negligence does not lie with the user.

In addition, the relationship between AI and the owner of AI can also be analogized to the relationship between a pet and its owner as explained in Article 1368 of the Civil Code. This is because analogously the same pattern of relationship can be found between the owner of a pet and its owner. Judging from the civil law, pets if they cause losses while under the supervision of their owners or when not under the supervision of their owners. Then, the person responsible for the losses caused by their pets is the owner of the pet. In this context, AI is a legal subject under the guardianship of the AI owner, which is then used for the purposes of other parties. So, if the AI does something that causes loss to another party or an estimate outside what it should be, the owner of the AI can be held liable in civil law.

To ensure greater legal certainty regarding the accountability for legal acts performed by AI, specific regulations are needed to determine the rights and obligations of the parties involved, particularly the providers and users of Artificial Intelligence. These regulations should clarify the limits of AI's liability. This is important because the legal status of AI in the legal field has three possibilities: it can be a new, independent entity, a legal subject under guardianship, or an object under ownership. Therefore, determining the legal status of AI in future regulations will affect the location of its civil liability. Although the Indonesian legal system allows for the use of

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analogy to fill legal gaps, providing an alternative way to understand the current landscape of technological law, more specific government regulations are still needed, especially to address the challenges faced by businesses in the sector experiencing negative impacts from the presence of Artificial Intelligence.

#### **4. Conclusion**

In the rapidly developing world, especially in the realm of technology, the progressiveness of law is required to regulate artificial intelligence (AI). These regulations are used to provide security and legal certainty to every citizen regarding legal acts caused by AI technology components controlled by Legal Subjects (Natuurlijke Persoon) or what is often referred to as humans. In order for stakeholders to take strategic steps, the following actions are recommended: The government, especially members of the council, can discuss regulations regarding Artificial Intelligence in the civil field to provide legal certainty for citizens who will conduct transactions between citizens. Stakeholders can address all legal impacts caused by the misuse of Artificial Intelligence, which is very rampant, in order to provide security to the public. All levels of government can create progressive legal innovation in the cyber field to provide security guarantees against the risk of AI misuse, both physically and non-physically.

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