



Challenges of Using Artificial Intelligence in Contract Drafting: How Should AI Legal Liability Be?

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Abstract

Artificial Intelligence (AI) in law is applied to contract drafting. The presence of AI makes it easier for people in contract drafting and, of course, can be used by contract drafters to facilitate their work. Nevertheless, AI's actions can cause losses to the users and all parties involved. The potential for a cyberattack could happen. Meanwhile, Indonesian law does not regulate legal liability against AI. Based on this background, this study is about the use of AI in contract drafting. This research falls within the category of normative research. Data collection is done by collecting legal materials such as laws, writings, books, and journals related to contract drafting. Technical analysis of legal material is done in a qualitative descriptive manner. The use of AI in contract drafting using smart contract features is provided by Legal Tech. The presence of AI in the legal area provides ease, efficiency, and effectiveness in the completion of contract drafting. However, any substitution between human resources and AI is potentially damaging and can easily leak the parties' personal information. While Indonesian law has not reached legal liability for the actions of AI; therefore, the analysis of AI's legal liability is carried out with the approach of the Vicarious Liability doctrine.

1. Introduction

The era of globalization has led to a change in human lifestyle in which all human activities are connected to the digital world; therefore, its impact leads to a world without borders (borderless). The term "Industrial Revolution 4.0" was coined in 2011 by the German government to describe their plan of utilizing technology, known as "Industry 4.0".¹ Behind the development of Industry 4.0, technological developments are activating this emerging era, such as artificial intelligence (AI). The intelligent machines will complete the shift of mechanisms in the manufacturing process by interacting with each other and the user.² The world has entered the stage of the generation of industrial

¹ Hofmann, E., & Rüsich, M. (2017). Industry 4.0 and the Current Status as Well as Future Prospects on Logistics. *Computers in Industry*, 89, 23–34. doi: 10.1016/j.compind.2017.04.002

² Yogaswara, R. (2019). Artificial Intelligence sebagai Penggerak Industri 4.0 dan Tantangannya Bagi Sektor Pemerintah dan Swasta. *Masyarakat Telematika Dan Informasi: Jurnal Penelitian Teknologi Informasi dan Komunikasi*, 10(1), 67-72.

revolution known as the era of evolution 4.0 to 5.0 in which all human activities are expressed through a device in the form of AI.

Citing Ahmad Rifaldi and Habib Adjie's opinion about AI, AI is a systematic artificial intelligence.³ Artificial intelligence refers to the field of science and technology that focuses on developing intelligent machines by producing computer programs or applications with advanced cognitive abilities. AI is a step towards creating computers, robots, applications, or programs that behave intelligently like humans. The primary objective of AI is to develop an expert system capable of exhibiting intelligent behavior, learning, demonstrating, explaining, and providing suggestions to users. This involves integrating human-like intelligence into a machine, enabling it to comprehend, reason, learn, and behave like humans.⁴ The knowledge base consists of facts, theories, ideas, and connections between them and is the primary element needed for artificial intelligence applications. Next comes the inference engine, which is the capacity to make inferences based on the knowledge base.⁵

AI, commonly called artificial intelligence, is a programmed system that thinks and behaves like a human. Artificial Intelligence is one of those technologies that has made significant progress. AI is capable of many tasks, including those related to law.⁶ AI first appeared in the field of law and proved beneficial in drafting contracts that were done electronically. This is proof of the advancement of AI and the advantages of productivity in the workplace.⁷ AI is a system specifically designed to exhibit human-like thinking and behavior through programming. The existence of this system is considered to have an impact both directly and indirectly on the legal profession. Looking further, an AI product that moves in legal technology has proven to beat the attorney's ability to do his job. The speed and precision of the Legal Tech is above the ability of an experienced lawyer.⁸

The presence of technology in the legal sector can be a golden door for the more advanced legal industry. The Industrial Revolution 4.0 has the potential to enhance manufacturing chain efficiency and product quality through digitalization and connectivity. However, on the other hand, it can threaten conventional law industries as the 4.0 industry revolution will also eliminate 800 million jobs worldwide by 2030 because of robots. Undoubtedly, Indonesia, a nation with a substantial labor force and a

³ Rifaldi, A., & Adjie, H. (2022). Minuta Akta Notaris dalam Bentuk Elektronik. *Hukum Bisnis*, 6(1), 716

⁴ Belani, S. (2023). Artificial Intelgence Sebuah Inovasi Baru Menjual Produk (Membandingkan Keunggulan FB, WA, Instagram, Telegram dan Youtube). *Lentera: Multidisciplinary Studies*, 1(2), 111-118. doi: 10.57096/lentera.v1i2.28, p. 111

⁵ Muhardono, A. (2023). Penerapan Algoritma Breadth First Search dan Depth First Search pada Game Angka. *Jurnal Minfo Polgan*, 12(1), 171-182. doi: 10.33395/jmp.v12i1.12340, p. 172

⁶ Kusumawati, R. (2018). Kecerdasan Buatan Manusia (Artificial Intelligence); Teknologi Impian Masa Depan. *ULUL ALBAB Jurnal Studi Islam*, 9(2), 257-274. doi: 10.18860/ua.v9i2.6218

⁷ Kurniawijaya, A., Yudityastri, A., & Zuama, A. P. C. (2021). Pendayagunaan Artificial Intelligence dalam Perancangan Kontrak Serta Dampaknya Bagi Sektor Hukum di Indonesia. *Khatulistiwa Law Review*, 2(1), 260-279. doi: 10.24260/klr.v2i1.108

⁸ Salmerón-Manzano, E. (2021). Legaltech and Lawtech: Global Perspectives, Challenges, and Opportunities. *Laws*, 10(2), 61-69. doi: 10.3390/laws10020024

relatively high unemployment rate, will inevitably experience a noteworthy influence.⁹ The use of AI can automate tasks in contract drafting. This condition not only saves time and money but also, more than that, can free legal professionals to focus on more complex and important issues. The public can also draft the contracts without paying for the legal services of the drafter. AI can make legal services more accessible to the public. 4 A resolution of the European Parliament of 2017 proposed to the member states of the European Union to create a specific legal status for robots as 'electronic persons', which turns out to be an application of the so called 'Fiction Theory'.¹⁰ The US-Uniform Electronic Transactions Act (UETA) is stipulating in its Section 14: "A contract may be formed by the interaction of electronic agents of the parties, even if no individual was aware of or reviewed the electronic agent's actions or the resulting terms and agreements".

The use of AI in contract drafting will guarantee the confidentiality of the contents of the contract and reduce the risk of human error due to inconsistencies. While it can improve time efficiency and maintain consistency, AI is challenged in contract drafting, i.e., limited understanding of specific contractual clauses, ethical issues, analysis of risks and the burden of liability when mistakes occur. Harry Surden argues that, given the current condition, it is evident that today's AI systems do not possess the capability of intelligent thought. AI systems may often produce valuable and astute outcomes without human expertise.¹¹ Based on the above description, the author is interested in further discussing AI's use in contract drafting in Indonesia. This research seeks to understand the development of artificial intelligence (AI) in contract law to advance the realization of the effectiveness and precision of contract drafting, the idea of implementation and how it functions, and its effects.

Several studies written by other researchers include Artificial intelligence as a service: Legal responsibilities, liabilities, and policy challenges by Jennifer Cobbe and Jatinder Singh. The findings from this research are that AI services will be increasingly relied upon by a wide variety of applications. Three companies - Amazon, Microsoft, and Google - are particularly dominant in the AIaaS market, although others do have smaller market shares. Crucially, AIaaS moves cloud providers beyond merely offering supporting infrastructure for applications (as in traditional cloud services) to enabling, facilitating, and underpinning customers' application functionality. This shifts in the role of AIaaS providers challenges.¹² Aditya Kurniawijaya, Alya Yudityastri, Ayuta Puspa Citra Zuama wrote about the use of artificial intelligence in contract design and its impact on the legal sector in Indonesia. The research results explain that artificial

⁹ Satya, V. E. (2018). Strategi Indonesia Menghadapi Industri 4.0. *Info Singkat*, 10(9), 19-24. Available from <https://www.bikinpabrik.id/wp-content/uploads/2019/01/Info-Singkat-X-9-I-P3DI-Mei-2018-249.pdf>

¹⁰ Koos, S. (2021). Machine Acting and Contract Law-The Disruptive Factor of Artificial Intelligence for the Freedom Concept of the Private Law. *UIR Law Review*, 5(1), 1-18. doi: 10.25299/uirlrev.2021.vol5(1).6890

¹¹ Surden, H. (2019). Artificial Intelligence and Law: An Overview. *Georgia State University Law Review*, 35(4). Available from <https://ssrn.com/abstract=3411869>.

¹² Cobbe, J., and Singh, J. (2021). Artificial Intelligence as a Service: Legal Responsibilities, Liabilities, and Policy Challenges. *Computer Law & Security Review*, 42 (2021): 105573. doi: 10.1016/j.clsr.2021.105573

intelligence in the legal sector is called legal tech to make it easier for contract drafters to design, review and analyze contracts through the smart contract feature. The smart contract feature has the ability to act as a contract generator system to create a complete contract design along with legal analysis of the contract. However, there are several risks to its use in the form of humanitarian biased decision making, data leaks and cyber attacks. The challenge faced is that the legal profession will be disrupted and have the potential to reduce the role of several existing legal professions.¹³ Mariska Cahyani Putri¹, Annisa Febyanti, Saskia Azzahra, Nurul Amaliyah Putri researched the Influence of the Use of Artificial Intelligence in the Formation of Legislation. The result of this writing is that Artificial Intelligence is a form of progress that can help and make human work easier, but its use must also be limited by special regulations, so that things that pose threats or negative impacts from its use can be minimized through the regulations that have been made. Apart from that, Artificial Intelligence is only limited to a tool or as a supporting tool for the formation of statutory regulations, because if Artificial Intelligence is used as a subject that can form statutory regulations, it is almost impossible to carry out. This is because legislation is a rule that originates from norms that grow in society which then become dynamic. In the end, Artificial Intelligence remains limited to providing assistance to humanity. And the realization of the use of Artificial Intelligence in the legal realm has occurred in Indonesia and other countries such as Singapore, China, Estonia and also the United States. These countries have utilized Artificial Intelligence in the legal realm, especially in its use as a tool to assist in forming legislation.¹⁴

2. Research Method

This kind of study uses a normative methodology. The problem approach used is a legal concept and a statutory approach. Data collection is carried out by collecting and retrieving data from legal materials such as laws, writings, books, journals and other materials related to contract design and telematics law. The primary legal materials used are the Civil Code and UNCITRAL Model Law. All scientific works used are those that support data regarding the challenges of using AI in contract drafting. Technical legal material is processed and analyzed using qualitative descriptive analysis. Qualitative data analysis is a method used to explain and evaluate acquired data to gain a holistic understanding of the current situation.

3. Result and Discussion

3.1 Basic Principles in Contract Planning

Article 1313 of the Civil Code governs contract law in Indonesia and defines a contract as an act in which one or more parties bind themselves to one or more parties. System of contract law Regulation is a framework that permits people to freely enter into contracts, whether or not those contracts are subject to legal restrictions. Article 1320 of the Civil Code defines a treaty's four terms of validity: 1) There is an agreement between the

¹³ Kurniawijaya, Yudityastri, and Zuama, *loc. cit.*

¹⁴ Putri, M. C., et al. (2024). Pengaruh Penggunaan Artificial Intelligence dalam Pembentukan Peraturan Perundang-Undangan. *Terang: Jurnal Kajian Ilmu Sosial, Politik dan Hukum*, 1(2), 266-284. doi: 10.62383/terang.v1i2.235

parties. Mutual consent between the parties is essential for forming a contract. These transactions can occur in various manners, but the crucial element is the presentation and acknowledgment of an offer. 2) Ability to carry out legal actions. Acting capability refers to the competence to perform lawful activities. Legal activities are actions that will result in legal ramifications. The individuals who will engage in a contractual agreement must possess the legal capacity to perform valid actions as defined by the law. 3) Something specific. The parties to a contract must specify its aim, which may include neither accomplishing anything nor providing goods or services. This particular thing in the contract is called a performance that can be a good, skill or power, and not doing something. 4). There is a lawful cause. A lawful reason is the fourth or last condition for an agreement to be valid. An agreement without a reason or an agreement made for something false or forbidden has no force. By reason (Dutch: *oorzaak*, Latin: *causa*) is nothing other than the contract's content.¹⁵

The initial and subsequent criteria are subjective conditions due to their connection with the parties involved in the agreement. The agreement might be terminated if the first and subsequent criteria are unsatisfied. This implies that either party can request the court to nullify the agreement. However, the covenant will continue to exist unless there is any opposition. If the third and fourth conditions are not met, it will be considered invalid according to the law.¹⁶ Testing the validity of the agreement is important to ensure the certainty of the proper implementation in the future. In this regard, good faith must exist in the pre-contractual relationship.

When carrying out the process of contract drafting, it is essential for the parties concerned to consider and comprehend certain fundamental concepts carefully. The existing principles must meet the legal requirements of a contract or agreement and the element of the parties' good faith, both objectively and subjectively. Carefulness is crucial to the parties that enter into contracts when designing a construction structure for such business contracts. Moreover, a good contract must be very clear and detailed in terms of its subject, its object, the obligations to be performed by the parties, and the sanctions to be imposed on the parties. Such a contract shall not be contrary to all the provisions of law made concerning the contract.¹⁷ This cannot be separated from the function of the contract itself, namely as a framework that underlies the relationship between the parties. Therefore, the contract material must adhere to these principles.

A contract is a legally enforceable agreement between two or more parties that sets their respective rights and obligations, which must be fulfilled by the involved parties and might lead to legal consequences. Parties in contract drafting must fulfill the five principles as stated in the Civil Code, as follows:

1. Article 1338, paragraph (1) of the Civil Code establishes the principle of freedom of contract, which stipulates that all agreements established by individuals are legally

¹⁵ Aprilia, D. E., Hidayatullah, N. A., & Iswan, M. (2021). Tinjauan Hukum Terhadap Perjanjian Nominee yang Diberikan Secara Lisan. *Lex Suprema*, 3(1), 783–802.

¹⁶ Sinaga, N. A., & Sulisrudatin, N. (2017). Hal – Hal Pokok dalam Pembuatan Suatu Kontrak. *Jurnal Ilmiah Hukum Dirgantara*, 7(2), 110–119. doi: 10.35968/jh.v7i2.134

¹⁷ Setiawan, K., Prakoso, B., & Ali, M. (2022). Notaris dalam Pembuatan Akta Kontrak yang Berlandaskan Prinsip Kehati-Hatian, *Jurnal Ilmu Kenotariatan*, 2(2), 43. doi: 10.19184/JIK.v2i2.20919

binding according to the law. According to the article, this basis gives the parties the liberty to (1) make or not make agreements; (2) conclude agreements with anyone; (3) determine the content of the agreement, execution, and its terms; and (4) determine the form of agreements in oral or written form.¹⁸

2. The basis of consensualism based on Article 1320 paragraph (1) of the Civil Code explains that in determining the validity of an agreement must be met with an agreement for both parties. The agreement does not have to be held formally, but it is sufficient to have an agreement from both parties. This means that the agreement can be verbal or formal.
3. The basis of legal certainty or the basis of *pacta sunt servanda* relating to the consequences of the agreement. This basis is derived from Article 1338, paragraph (1) of the Civil Code. Legal certainty is founded on the principle that the parties involved in an agreement have an equitable position. The involvement of a third party should not disrupt or influence the agreement's content. In other words, the third party must adhere to the agreement's legal principles, as the agreements are legally binding and enforceable for the parties involved.
4. The Civil Code's article 1338, paragraph (3) states that "A contract shall be executed in good faith" as the foundation for goodwill. According to this foundation, to achieve a shared objective, the parties must implement the terms of the agreement in good faith, honesty, and goodwill and without being under any form of coercion.¹⁹
5. The foundation of personality base is the basis that establishes a person who will carry out and/or conclude a contract for the sole interest of the individual, which only applies between the parties who make it, according to articles 135 and 1340 of the Civil Code.²⁰

In the applicable contract regulations, nothing specifically regulates what clauses or provisions must be in a contract. Contracts are crucial, especially when actions or transactions give rise to civil relations, so you need to know what important clauses should be in a contract. Based on the principles of contract design above, a red thread can be drawn that the contract contains specific things necessary for the parties, such as a definition clause, transaction clause, specific clause and general clause. First, a definition clause is a clause that deals with definitions for contractual purposes that aim to streamline subsequent clauses so that there is no need for repetition. Second, transaction clauses or operative clauses are clauses that contain transactions to be performed. Third, a specific clause is a clause that regulates specific things in a transaction, such as payment on the object of a contract. Fourthly, a general provision

¹⁸ Muhtarom, M. (2014). Asas - Asas Hukum Perjanjian: Suatu Landasan dalam Pembuatan Kontrak. *Suhuf*, 26(1), 48-56. Available from <http://hdl.handle.net/11617/4573>.

¹⁹ Wulandari, A. S. R., & Basir, A. (2020). Penerapan Prinsip Bagi Hasil pada Pembiayaan di Bank Syariah Menurut Undang-Undang Perbankan Syariah. *Khatulistiwa Law Review*, 1(1), 61-76. doi: 10.24260/klr.v1i1.31

²⁰ Darmawan, M. I., & Suryawati, N. (2023). Analisa Yuridis rentang Perjanjian Sewa Menyewa Tanpa Batas Waktu. *Law, Development and Justice Review*, 6(2), 180-199. doi: 10.14710/ldjr.6.2023.180-199

clause is a clause that regulates the legal domicile, settlement of disputes, choice of law, notification, the whole of the agreement, etc.²¹

3.2 Contract Drafting Challenge by AI

According to Minsky, artificial intelligence (AI) is a machine that can perform any task that human intelligence can. AI is designed to describe the quality of human life, such as work planning, problem-solving, reasoning, acknowledging an idea, stimulating the ability to think, and various other activities that can drive work quickly and efficiently.²² The work is getting easier with the sophistication of technology. Harry Surden explains that machine learning consists of a computer algorithm that requires initial data to learn so it can improve its performance on some of the tasks it gets well over time.²³ AI refers to computer programs designed to imitate human intelligence, including decision-making abilities, logic, and other characteristics of intelligence. Various jobs can be done easily with AI, even replacing the human function of thinking.

AI in the legal sector is known as legal technology. The use of legal technology that is currently being developed by countries around the world in relation to contracts is the use of AI to make it easier for contract drafter to design, review, and analyze contracts. The development of such AI is rapidly coupled with its ability to do things that can be done by humans and even better than humans can influence the field of contract law particularly in contract drafting. The need for contract planning is very high, ranging from simple needs such as renting private assets, to the need for business contracts in a company. Introduction of AI in contract drafting needs to be implemented in Indonesia for efficiency. It is just like the AI applied in Europe and America used by legal practitioners like lawyers.²⁴ The United States itself has an AI platform called SpotDraft that can use sophisticated machine learning algorithms to automate contract drafting and negotiation.

The smart contract feature is one of the various forms of facility in the legal sector particularly in the field of contract drafting, that is currently able to be provided by Legal Tech. Smart contract capabilities enable the generation of comprehensive contract drafts and provide legal analysis of the deal. Nick Szabo signed the first smart contract in 1994 to satisfy standard contractual requirements such terms of payment, liens, secrecy, and enforcement. Reducing the number of unintended and purposeful exceptions as well as the need on trusted intermediaries are the main objectives of smart contract design. One of the economic objectives is to reduce the amount of money lost due to fraud and the costs associated with arbitration, enforcement, and other transaction-related expenses.²⁵ This smart contract feature has already begun to be developed by many countries,

²¹ Kurniawijaya, Yudityastri, and Zuama, *loc. cit.*

²² Bhora, D., & Shravan, K. (2019). Demystifying the Role of Artificial Intelligence in Legal Practice. *Nirma University Law Journal*, 8(2), 1-13. Available from <https://ssrn.com/abstract=3443000>.

²³ Surden, H. (2014). Machine Learning and Law. *Washington Law Review*, 89(1), 87-115. Available from <https://digitalcommons.law.uw.edu/wlr/vol89/iss1/5>

²⁴ Yudoprakoso, P. W. (2019). Kecerdasan Buatan Sebagai Alat Bantu Proses Penyusunan Undang-Undang dalam Upaya Menghadapi Revolusi Industri 4.0 di Indonesia. *Simbur Cahaya*, 25(2), 134-148.

²⁵ Szabo, N. (1996). Smart Contracts: Building Blocks for Digital Markets. *EXTROPY: The Journal of Transhumanist Thought*, 18(2).

dozens of which have been developed by local companies, including banks' financial institutions in Singapore and Malaysia.²⁶ Smart Contracts are legally binding agreements created by the involved parties using computer code, which is subsequently saved in the Blockchain. Once the contract is finalized, if both parties fulfill their obligations as outlined, the performance will be carried out automatically.

Smart contracts differ from traditional ones in that they are not created by conventional parties but signed by those parties. The relationship between the parties is established by the smart contract through the use of cryptographic code. Smart contracts are composed of code and operate as sophisticated statements that are activated automatically by an algorithm upon the fulfillment of predetermined circumstances. Smart contracts obviate the necessity of intermediaries, enabling participants to engage in direct transactions.²⁷ Nick Szabo defines smart contracts as artificial intelligence technology specifically created to streamline and carry out digital contracts. While smart contracts may differ in format, their function remains the same as traditional contracts: to serve as a legally enforceable agreement between the parties concerned. The legitimacy of smart contracts operating on Blockchain technology remains uncertain.²⁸

Smart contracts are digital in nature and have a standard clause that can be executed on its own. Consequently, smart contracts need to possess legal protections for all involved parties. Numerous economic fields, such as financial agreements, real estate transactions, insurance policies, venture capital investments, logistical operations, and crowdfunding campaigns, make substantial use of smart contracts. These applications are prevalent across different countries and supported by various platforms such as Bitcoin, Ethereum, Counterparty, Stellar, Lisk, Cardano, Neo, Rootstock, etc.²⁹ Smart contracts, which utilize artificial intelligence, have evolved due to technological advancements and are considered advantageous compared to traditional contracts, particularly regarding contract security. Smart Contract is a computer program which is basically an electronic agreement in a blockchain database system with the aim of being a protocol for implementing agreements or agreements between parties which is capable of terminating clauses automatically. The clauses regulated are payment, delivery, guarantee and forced down payment clauses. Smart contracts consist of a series of data codes in a blockchain network without having a physical form like conventional agreements. In smart contracts that are made unilaterally by the publisher or seller, the saying "take it or let it" appears because of its more rigid nature, dissolving conventional agreements where the contents of the agreement rest on both parties.³⁰ However, if

²⁶ Muneeza, A., & Mustapha, Z. (2020) The Potential of Fintech in Enhancing the Use of Salam Contract in Islamic Banking. *International Journal of Islamic Economics and Finance (IJIEF)*, 3(2), 305–334. doi: 10.18196/ijief.3231

²⁷ Firdaus, D. H. (2020). Aplikasi Smart Contract dalam E-Commerce Perspektif Hukum Perjanjian Syariah. *Jurnal Qolamuna*, 6(1), 37-54.

²⁸ Muhammad, D. (2019). Karakteristik Perjanjian Jual Beli dengan Smart Contract dalam E-Commerce. *Jurist-Diction*, 2(5).

²⁹ Rosadi, S. D. (2020). Pengaturan Smart Contract di Berbagai Negara. *Buletin Hukum Kebanksentralan*, 17(1), 96.

³⁰ Tanumihardjo, K. G., and Putra, M. A. P. (2022). Penggunaan *Smart Contract* di Indonesia. *Jurnal Kertha Wicara*, 11(2), 437-447.

operating within the jurisdiction of Indonesian law, the resulting contract must comply with Article 1320 of the Civil Code

The concept of the intelligence feature uses a deep learning system or technique that consists of algorithms modeling high-level abstraction of data using layered and profound non-linear transformation functions like those used in various applications to perform image recognition, voice, and text classification based on meta-data; so that, automatically this deep learning will generate the direct representation of the entered data either in the form of images, videos, or text, to advance its role as Contract Generator Systems. Deep learning allows the features of contract drafting based on artificial intelligence to further enhance the ability to formulate standard forms of contracts, analysis, and dictionary selection for various types of contracts that can be made. The more contractor software is used, the more data is being inserted into the software, and the system will store the data as an enrichment of knowledge. AI will combine machine learning and the ability to learn from data without rule-based programming. Furthermore, the more knowledge or data the device has, the smarter the device's capabilities. The revelation of artificial intelligence (AI) in contract creation highlights numerous advantages in the legal domain, particularly in terms of time and cost-effectiveness, as well as the use of human resources.³¹

In the context of contract drafting, AI enables the contract drawing process to be more efficient and accurate by leveraging the ability of AI to identify patterns, analyze data, and generate contract texts optimally. The first legal due diligence reviews (LDD) are legal inspections or research activities conducted by advocates against a company to obtain facts or objective data that can describe the company's condition and the property or legal relationships between a company. Secondly, contract drafting requires a lot of preparation, namely, the ability to draft contracts. The AI used in drafting contracts is the fast-track drafting and contract provided by "thomsonreuters.com." Fast-tracks can prepare contractual documents and compile them according to the parameters desired by a company. Furthermore, the company has the freedom to select the desired contract type and can efficiently process it using automated means. Thirdly, contract management is exhausting when done manually, whether it's a contract to renew, which contract to terminate, to sort the contract according to the number of transaction objects. Fourthly, legal research is the basis of contract drafting. AI can do legal research in a variety of languages and can sort from legislative regulations, legal cases, to settlement. AI makes it possible to logically predict a judge's verdict based on the available data.³²

AI can automatically generate contracts based on predefined templates and analyze the language used in existing contracts to mark potential problems and offer suggestions for corrections. AI also helps simplify the negotiation process by identifying controversial contractual clauses and suggesting alternatives. Nevertheless, AI does not have the same intuition as humans. Humans can understand the differences in the context of legal systems (Anglo-Saxon and Continental Europe) and even predict the possible legal risks.

³¹ Tsang, L. et al. (2017). The Impact of Artificial Intelligence on Medical Innovation in the European Union and United States. *Intellectual Property & Technology Law Journal*, 29(8), 1-8. Available from <https://www.arnoldporter.com/~media/files/perspectives/publications/2017/08/the-impact-of-artificial-intelligence-on-medical-innovation.pdf>

³² Kurniawijaya, Yudityastri, and Zuama, *loc. cit.*

The client can freely ask advanced questions and seek clarification about areas of the contract that may not be clear to humans.

The presence of AI in the legal world, especially its use in contracts, is undeniably capable of bringing some benefits that promise ease, efficiency, and effectiveness in helping solve the labor burden of legal practitioners. However, in addition to being able to deliver profits, it is predictable that any substitution between human and machine power always brings some work risks and challenges. The work risk is the extent to which the machine can deliver a desired result and the possibility of making decisions based on human bias. The system relies largely on the input of data that is incorporated into it. There is concern that AI can repeat prejudices that should not be defended but are instinctively owned by humans.

Other work risks that may occur are personal data leaks and cyber-attacks. Based on big data, the Artificial Intelligence operating system requires input in client data, including personal data. Once entered into the system, data will be stored forever and become a source of learning for AI in handling various cases. A database of artificial intelligence-owned systems that once worked mysteriously could easily leak personal information belonging to clients when hacked. Certainly, personal data is an asset for every person or company. Therefore, the risk of cyber-attacks is also a serious consideration. Creating a separate challenge becomes the next thing to consider in the release of AI.³³

The occurrences of hacking on Smart Contracts, specifically the DAO (Decentralized Autonomous Organization) and Parity Wallet incidents, demonstrate that despite the utilization of advanced technology, smart contracts are still susceptible to issues that can lead to financial losses.³⁴ Like the emergence of the B2C2 Ltd v Quoine Pte Ltd case that occurred in 2019 in Singapore in which there was a case of contract breach by the company Quoine Pte Ltd in the autonomous digital token algorithmic trading agreement with B2C2 Ltd because of the occurrence of logical errors that resulted in unexpected for B2C2. While smart contract-based technology is advancing as a benefit of artificial intelligence, it is important to acknowledge potential issues such as codification, security, performance, and privacy. The hacking of personal data must be very worrying considering the possible impact, especially concerning the breach of customer accounts. When this happens, it will be challenging to determine the legal liability of AI, unlike when humans commit the act of causing the loss. The complexity of using AI in the legal sector has apparently raised concerns in the minds of several people who work in the legal services industry in Indonesia. They are of the view that the presence of AI can intervene or replace their jobs.³⁵ The existence of AI as a legal subject is also unclear, even though this is related to legal liability when contracts made cause losses.

³³ Budi, E., Wira, D., & Infantono, A. (2021). Strategi Penguatan Cyber Security Guna Mewujudkan Keamanan Nasional di Era Society 5.0. *Prosiding Seminar Nasional Sains Teknologi dan Inovasi Indonesia (SENASTINDO)*, 3, 223–234. doi: 10.54706/senastindo.v3.2021.141

³⁴ Baihaiqi, M. R. (2022). Tinjauan Yuridis Penerapan Smart Contract di Indonesia Sebagai Bentuk Perkembangan Kecerdasan Buatan (Artificial Intelligence). Thesis, Master's Program Notariary, Universitas Islam Sultan Agung.

³⁵ Jumantoro, T. R. P. (2024). Menilik Pro dan Kontra Pemanfaatan dan Penetapan Status Hukum Artificial Intelligence (AI) dalam Hukum Positif Indonesia. *Journal of Analytical Research, Statistics and Computation*, 3(1), 51-70. doi: 10.4590/jarsic.v3i1.28

3.3 The Future AI Arrangement

The potential errors made by AI must still exist. AI actions that cause losses, such as data leaks or other misconduct, can be caused by inconsistencies when orders are processed on the machine. At least, there are two possibilities. First, the commands given are incompatible or imperfect with the data input on the machine, so the Inference Engine cannot process them properly. Second, early human negligence during data input can also cause errors when the machine is trained (Training) and misprogramming.³⁶ AI could replace several jobs, and humans will lose jobs as AI becomes better at doing things that only humans could do before. AI can create new jobs where humans will program computers with AI capabilities. However, this does not mean that AI can do work that was previously done by humans perfectly.

In this case, legal liability is essential to protect the victim. AI's acts that violate the ethics and rules of law should be held accountable, especially if they cause damage to others. Positive law in Indonesia does not acknowledge AI as a subject of law. Legal liability will always relate to the legal subject as a carrier of rights and obligations. Legal subjects consist of persons and legal bodies. AI cannot be equated with the legal body as a legal subject, where a legal body has a clear and explicit purpose in its establishment and a human scope. AI cannot stand independently that, as is known, computers are regulated and programmed by humans. Suppose such computers or AI make a decision that can be compared to humans. In that case, the perfection of such decisions cannot be assured if there is no human supremacy in decision-making because computers aren't always free from system errors.³⁷

Analysis of the legal liability of AI when its actions cause loss will refer to the Vicarious Liability doctrine. When AI does something that breaks the law or causes loss, substitutive liability may be employed to address the situation. This doctrine essentially states that others can be held accountable for acts or crimes committed by others. Any act of AI that causes harm to others and violates ethical values, even as a criminal act, can be held accountable by the creators and developers of AI, including the online business department. This assertion aligns with the UNCITRAL's (United Nations Commission on International Trade Law) explanatory note, which restates the general principle in Article 12: a person (individual or legal entity) whose computer is ultimately programmed must bear responsibility for any message produced by a machine.³⁸

The company acts as a substitute liable because AI is not classified as a person or a legal entity. The legal liability system applies to electronic contracts created by AI. This means that, regardless of whether the AI's actions are imagined or planned, the person or legal body that provides the data and knowledge, commands the AI, or acts on behalf of the

³⁶ Yıldırım, S. (2020). Data Leakage in Machine Learning. Available from <https://towardsdatascience.com/data-leakage-in-machine-learning-6161c167e8ba>.

³⁷ Haris, M. T. A. R., & Tantimin, T. (2022). Analisis Pertanggungjawaban Hukum Pidana Terhadap Pemanfaatan Artificial Intelligence di Indonesia. *Jurnal Komunikasi Hukum (JKH)*, 8(1), 307-316. doi: 10.23887/jkh.v8i1.44408, p. 312

³⁸ Priowirjanto, E. S. (2022). Urgensi Pengaturan Mengenai Artificial Intelligence pada Sektor Bisnis Daring dalam Masa Pandemi Covid-19 di Indonesia. *Jurnal Bina Mulia Hukum*, 6(2), 254-272. doi: 10.23920/jbmh.v6i2.355

AI bears responsibility for the AI's actions.³⁹ Thus, the discourse that losses caused by AI performance cannot be covered by legal responsibility is untrue. Legal responsibility remains borne by the person or legal entity that controls the AI.

4. Conclusion

Contract drafting is one area where artificial intelligence (AI) is used in the legal industry. Publicly accessible, AI will make it easier for contract designers to draft, review, and analyze contracts. This will, of course, make it easier for a contract drafter; even a community can use AI to design contracts for themselves without involving legal professionals. Nevertheless, the ethical standards and intuition in predicting possible problems between the parties to an agreement are certainly not owned by AI, compared to humans. Applying the principles of contractual freedom, consensuality, legal certainty or *pacta sunt servanda*, ethics and personality is not necessarily fully applicable to AI in the contract drafting. The work of AI also enables losses and potentially becomes the target of a cyber-attack. In response to this condition, the Vicarious Liability doctrine is used so that the legal liability for the actions of AI is requested from the legal subject, the person or legal entity who provided data and knowledge input, gave orders to the AI, or the person or legal entity on whose behalf the AI acts.

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³⁹ Čerka, P., Grigienė, J., & Širbikytė, G. (2015). Liability for Damages Caused by Artificial Intelligence. *Computer Law & Security Review*, 31(3), 376–389. doi: 10.1016/j.clsr.2015.03.008

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