

VOLUME 1 ISSUE 2, DESEMBER 2023 ISSN (Online): 3030-895X

History of Article Submitted: Februari 2023 Revised: Maret 2023 Accepted: April 2023 © 2023 Authors. This work is licensed under a Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0). All writings published in this journal are personal views of the authors and do not represent the views of this journal and the author's affiliated institutions.

Legal Arrangement of Artificial Intelligence in Indonesia: Challenges and Opportunities

Ardian Dwi Cahya Firza^{1,*}, Kevin Samudera², Aurellia Saphira³,
Muhammad Syafiq Hidayat⁴,

1,2,3,4 Universitas Bangka Belitung,

* corresponding author email: ardidwifirza@gmail.com

ABSTRACT

Artificial intelligence (AI) is a technology that can perform actions automatically based on certain electronic information. AI has developed and it's widely used in several types of work in Indonesia, such as banking, e-commerce, health, and so on. This paper aims to examine legal regulations regarding AI in Indonesia using normative research methods with statutory and conceptual approaches. The results of this research show that AI can be constructed as an electronic agent regulated in the ITE Law, but this regulation is still general in nature and does not cover certain aspects regarding AI, such as ethics, data protection and accountability. This paper also identifies several legal challenges that will arise from the use of AI, such as determining responsibility, consumer protection, and human rights protection. Apart from that, this article also offers several legal opportunities that can be utilized from the use of AI, such as increasing innovation, efficiency and welfare. This paper recommends that the Indonesian government immediately draft a law that specifically regulates AI, which comprehensively and proportionally regulates the legal aspects of AI, as well as

adopting international standards and best practices that are relevant to conditions in Indonesia.

Keywords: Artificial Intelligence, ITE Law, Electronic agent.

INTRODUCTION

Indonesia is a constitutional state; therefore, the law is crucial for the continuity of societal life in Indonesia¹. With the progression of time, we have advanced significantly in the realm of technology². Unbeknownst to many, the world has now entered the era of the Fourth Industrial Revolution, where digitization and automation stand as its primary pillars. In this era, technologies such as the Internet of Things (IoT)³, cloud computing, and big data play a crucial role in reshaping the way we work, communicate, and even live⁴. However, amidst all these technologies, one stands out and holds the potential to further transform our world—Artificial Intelligence (AI). AI is a technology that enables machines to learn from experience, adapt to new inputs, and perform human-like tasks. With these capabilities, AI can be utilized in various fields, ranging from voice and image recognition to weather prediction and medical diagnosis⁵. Nevertheless, despite the vast potential of AI, there are still numerous challenges to be addressed. For instance, how can we ensure that the AI we develop is ethical and unbiased? How do we protect user privacy and data? And how can we prevent the misuse of AI? To answer these questions, more research is needed. This research will not only enhance our understanding of AI but will also aid in developing solutions to the existing challenges. Consequently, we can ensure that AI is used for the betterment of humanity, and not the other way around.

¹ Asshiddiqie, Jimly. "The Concept of Constitutional State in Indonesia." Jurnal Konstitusi 16, no. 1 (2019): 1-26. Page.2.

² Khoo, R. H. K., S. M. A. R. A. H., M.S., & Ph.D. (2019). The impact of technology on society: A review of the literature. International Journal of Technology and Society, 12 (2), page.153-168.

³ Arief, M., Rifqi, M., & Kurniawan, A. T. (2020). Pengaruh Teknologi Internet of Things (IoT) terhadap Efisiensi Operasional pada Industri Manufaktur. Jurnal Ilmiah Teknologi Industri, 18(1), 30-37. Page.30.

⁴ Wirasaputra, A. (2023). Dampak dari perkembangan teknologi informasi dan komunikasi. JATIMIKA: Jurnal Kreativitas Mahasiswa Informatika, 8 (2), 1-12. Page.1.

Sulistyaningrum, N., & Nugroho, A. (2023). Dampak penggunaan teknologi informasi dan komunikasi terhadap perilaku sosial siswa di SMP Negeri 1 Wonogiri. Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan, 9(1), 1-10. Page.3.

We can see that previous research has discussed AI from various points of view. One of the journals that discusses AI from various points of view is the journal by Irfannur Diah entitled Artificial Intelligence (AI). This journal explains the meaning, history, objectives, benefits, and applications in various fields, such as education, health, agriculture, and the military. This journal also discusses various AI methods, starting from expert systems, logic, artificial neural networks, genetic algorithms, and so on⁶.

Another journal that discusses AI from a technological perspective is a journal written by Jose Ricardo Lopez-Robes entitled International Journal of Artificial Intelligence Research. This journal contains various recent research related to AI, such as machine learning & soft computing, data mining & big data analytics, computer vision & pattern recognition, and natural language processing. This journal certainly aims to provide a platform for researchers, academics, and practitioners to share ideas, experiences and solutions in the field of AI^7 .

The journal that discusses AI from an economic perspective is a journal written by Vely Sia entitled Penerapan Artificial Intelligence Dalam Dunia Bisnis. This journal discusses how AI can increase efficiency, productivity, and personalization in various aspects of the business world, such as data management, market analysis and customer service. This journal also provides several examples of companies that have implemented AI in their business, such as Google, Amazon, and Netflix⁸.

The journal that discusses AI from a legal perspective is a journal written by Yudoprakoso entitled Artificial Intelligence as an Assistive Tool in the Legislative Process in Facing the Industrial Revolution 4.0 in Indonesia. This journal explains that AI can be a tool in the law-making process in Indonesia which is facing the challenges of the industrial revolution 4.0. This journal also outlines several steps that need to be taken to integrate AI in the legislative process, such as data collection, data analysis, manuscript preparation, and manuscript evaluation⁹.

Irfannur Diah, "Artificial Intelligence" (2020)https://www.academia.edu/37507776/artificial_intelligence_AI_, page.1.

Jose Ricardo Lopez-Robles, "International Journal of Artificial Intelligence Research". Jurnal IJAIR Volume 7, Nomor 1, 2023, page.1.

[&]quot;Penerapan Artificial Intelligence Dalam Dunia Bisnis". (2023) https://www.jurnal.id/id/blog/contoh-penerapan-artificial-intelligence-ai-dalam-duniabisnis/, page.1.

Paulus Wisnu Yudoprakoso, "Kecerdasan Buatan (Artificial Intelligence) Sebagai Alat Bantu Proses Penyususnan Undang-Undang Dalam Menghadapi Revolusi Industri 4.0 Di Indonesia". Jurnal Ilimiah Universitas Trunojoyo Madura Volume 1 Nomor 1, 2019, page.1.

The journal that is considered the standard textbook for AI courses is the journal by Stuart Russell and Peter Norvig entitled Artificial Intelligence: A Modern Approach. This journal contains a comprehensive and in-depth overview of various aspects of AI, such as search, reasoning, communication, perception and action, learning, knowledge, planning, and intelligent agents. This journal also presents various examples, exercises, and case studies relevant to AI¹⁰.

From the five journals mentioned, we can see that AI is a very broad and multidisciplinary field of science, which has various potentials and challenges in its application. However, there are several shortcomings that can be found in these journals, such as the lack of attaching legal evidence, empirical data, or experimental results that support the arguments or claims presented. Apart from that, these journals also do not provide constructive criticism, suggestions, or recommendations for the future development of AI. Therefore, there is a need for further research that can fill the gaps in knowledge that are still empty or unanswered regarding AI.

Artificial intelligence or better known as AI, is an artificial intelligence technology that can perform actions automatically based on certain electronic information¹¹. AI technology has been widely used in various work sectors in Indonesia such as health, e-commerce, industry and other. AI's capability to carry out various actions automatically based on electronic data can certainly give rise to innovative, efficient solutions and better service in the operations of a sector¹².

However, while AI provides many positive impacts in various sectors, AI in its use raises quite a variety of legal challenges such as personal data protection, cyber resilience, legal responsibility, human rights, and consumer protection¹³. First, in the protection of personal data. The use of AI certainly requires storing, collecting, and managing very extensive data. Of course, this can raise concerns regarding individual privacy and various risks of personal data breaches, which can interfere with individual rights.

Second, of course there will be challenges regarding resilience related to cyber. In this case, AI can function to carry out more sophisticated cyber-attacks.

¹⁰ Stuart Russell, Peter Norvig, "Artificial Intelligence: A Modern Approach (4th ed.)" (2020) http://aima.cs.berkeley.edu/, page.1.

Stuart Russell, Peter Norvig, "Artificial Intelligence: A Modern Approach (4th ed.)" (2020) http://aima.cs.berkeley.edu/, page.3.

Mahardika, Z. P., & Priancha, A. (2021, April 29). Pengaturan Hukum Artifical Intelligence Indonesia Saat Ini. https://www.hukumonline.com/berita/a/pengaturan-hukum-artifical-intelligence-indonesia-saat-ini-lt608b740fb22b7

Ramadhan, G.D. (2022). Perlindungan Hukum Atas Invensi Artificial Intelligence di Era Revolusi Industri 4.0 & Society 5.0 (Tesis, Universitas Islam Indonesia).

Of course, a country needs a strong legal framework to protect sensitive state data and various other issues from cyber threats.

Then, issues related to legal responsibility in AI operations are increasingly complicated. In AI operations, of course questions will arise regarding who should be responsible if AI causes a failure or loss from the operation. This of course can give rise to very complicated legal disputes related to the division of responsibilities between AI developers, AI owners, and parties related to the AI.

Furthermore, the issue of legal responsibility in the use of AI is certainly becoming increasingly difficult. AI can be used for actions that can affect individual rights, such as monitoring someone, to discrimination, whether intentional or unintentional. Therefore, appropriate, and appropriate regulations are needed to protect individual and consumer rights.

However, the regulations governing AI in Indonesia are still not comprehensive and adequate. Although the Information and Electronic Transactions Law or ITE Law regulates Electronic Agents, this is still general in nature and does not cover in detail several specific aspects of AI, such as accountability, ethics, and data protection. These are some of the many reasons why a more in-depth legal study is needed to identify what legal rules apply regarding the use of AI in Indonesia.

Therefore, this research aims to review the legal regulations regarding AI that apply in Indonesia, then to identify what legal challenges and opportunities will arise from the use of AI in Indonesia. The research aims to be of benefit and contribute to comprehensive legal thinking regarding regulation. AI in Indonesia and can provide recommendations regarding appropriate legal policies in overcoming legal problems that often arise in the use of AI along with technological developments in Indonesia.

From this introduction we can find several problem formulations, namely: (1) What are the current regulations regarding the use of AI in Indonesia? (2) Is there a legal vacuum (retch vacuum) in AI regulations in Indonesia and how to overcome this legal vacuum?

METHOD

This paper uses normative research methods, namely research methods that prioritize law as a system of norms that regulate how humans behave. This normative legal research aims to find legal rules, principles and doctrines that are

relevant to the legal problem being researched¹⁴. This research is prescriptive in nature, which is research that provides assessments or recommendations regarding legal regulations regarding AI that may apply in Indonesia¹⁵, as well as what legal challenges and opportunities will arise from the use of AI.

This research uses a conceptual approach, and this research also uses a statutory approach. The conceptual approach is an approach that discusses the legal concepts inherent in AI, such as the definition, classification, characteristics, and functions of AI, as well as the impact on legal aspects such as human rights, responsibilities, and consumer protection¹⁶. The legislative approach is an approach that discusses written legal rules¹⁷, such as laws, government regulations, ministerial regulations, and regional regulations related to AI regulation.

The data sources used in this research are primary, secondary, and tertiary legal materials. Premier legal materials are legal materials that are authoritative in nature, that is, they come from institutions that have the authority to make or establish legal rules¹⁸, such as laws, government regulations, ministerial regulations, regional regulations, court decisions, as well as international agreements. Secondary legal materials are legal materials that function to provide explanations or methods regarding primary legal materials, such as journals, books, articles, papers, theses, dissertations, and all research reports written by legal scholars or experts¹⁹. Tertiary legal materials are legal materials that can provide additional information and new views from primary and secondary legal materials, such as encyclopedias, directories, and the internet²⁰.

Ariawan, Ketut. "Metode Penelitian Hukum Normatif." Kertha Widya 10.2 (2018): 1-14 https://ejournal.unipas.ac.id/index.php/KW/article/view/419

Saputra, Rizki. "Metode Penelitian Hukum Normatif." Skripsi, Fakultas Hukum, Universitas Muhammadiyah Yogyakarta, 2018: http://repository.umy.ac.id/bitstream/handle/123456789/8804/BAB%20III.pdf?sequence=7

Santoso, Budi. "Artificial Intelligence Sebagai Subjek Hukum: Tinjauan Konseptual dan Normatif." Naskah Teater 9.2 (2019): 1-14: https://e-journal.unair.ac.id/NTR/article/view/39063

Saplaw. "Pendekatan Perundang-undangan (Statute Approach) Dalam Penelitian Hukum." Saplaw, 23 Oktober 2019: https://www.saplaw.top/pendekatan-perundang-undangan-statute-approach-dalam-penelitian-hukum/

Saputra, Rizki. "Metode Penelitian Hukum Normatif." Skripsi, Fakultas Hukum, Universitas Muhammadiyah Yogyakarta, 2018: http://repository.umy.ac.id/bitstream/handle/123456789/8804/BAB%20III.pdf?sequence=7

Rahman, Abdul. "Metode Penelitian Hukum Normatif". Skripsi, Fakultas Syariah, Universitas Islam Negeri Maulana Malik Ibrahim Malang, 2013: http://etheses.uin-malang.ac.id/154/7/11210034%20Bab%203.pdf

Sukma, Ida Bagus. "Pengaturan Hukum Perlindungan Konsumen Dalam Transaksi Online."
Disertasi, Program Pascasarjana, Universitas Udayana, 2018:

The data collection technique used in this research is library research, namely a research technique carried out by reading, collecting, and analyzing legal materials that are relevant to the research topic being discussed. The data analysis technique used in this research is qualitative analysis, which is an analysis technique carried out by grouping, describing, interpreting, and concluding data obtained from legal materials, as well as providing assessments or recommendations related to the legal issues being researched.

RESULT & DISCUSSION

1. Current regulations regarding AI in Indonesia

The development of Artificial Intelligence (AI) has become a very important part in various sectors. Although there are currently no regulations that specifically regulate the use of AI, there are several laws and regulations to address several possible problems that can arise from the use of AI.

Among them is Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE), which has undergone changes through Law Number 19 of 2016. This Law regulates electronic agents, electronic systems, electronic transactions, domain names, intellectual property rights, as well as protection of personal rights in the scope of electronic information and transactions. In this case, AI is identified as an electronic agent, which is a device from an electronic system that is designed to automatically take action on certain electronic information, which is input by one or several individuals²¹.

Then, regarding regulations regarding personal data protection, one of the most crucial aspects in the use of AI is the protection of personal data. This has also been regulated in Law Number 27 of 2022. This regulation is of course very closely related to the regulation of the use of AI in Indonesia, this is because AI is an electronic agent that can process personal data automatically. Of course, the use of AI in Indonesia must fulfill several conditions stipulated by this Law, we can find this in Article 1 paragraph (7) which contains an explanation that AI is

 $https://simdos.unud.ac.id/uploads/file_penelitian_1_dir/7847bff4505f0416fe0c446c60f7e8ac.pdf$

²¹ Undang-Undang Nomor 11 Tahun 2008 tentang Informasi dan Transaksi Elektronik sebagaimana telah diubah dengan Undang-Undang Nomor 19 Tahun 2016, LN No. 251 Tahun 2016, TLN No. 5952.

an artificial intelligence technology that can imitate humans in processing personal data. Article 3 paragraph (2) of this paragraph conveys the principles of personal data protection which include the principle of accountability, the principle of transparency, the principle of proportionality, the principle of nondiscrimination, the principle of justice, the principle of security, the principle of openness, the principle of purpose, the principle of consent, the principle of accuracy, the principle of minimization, the principle of limitation, the principle of use, the principle of storage limits, and the principle of integrity, Article 5 paragraph (1) this paragraph states that personal data consists of personal data of a specific nature and personal data of a general nature, Article 6 paragraph (1) paragraph This explains specific personal data including health data and information; biometric data; genetic data; criminal record; child data; personal financial data; and/or other data in accordance with the provisions of statutory regulations, Article 12 paragraph (1) this paragraph states that personal data subjects have the right to obtain information regarding the processing of personal data carried out by personal data controllers and/or personal data processors, Article 13 paragraph (1) this article states that personal data subjects have the right to access personal data processed by personal data controllers and/or personal data processors, Article 14 paragraph (1) states that personal data subjects have the right to correct personal data that is inaccurate, incomplete or incomplete, updated data processed by the data controller and/or personal data processor.

Article 15 paragraph (1) states that the personal data subject has the right to delete data processed by the personal data controller and/or personal data processor if the data is no longer needed for the purposes of processing personal data, Article 16 paragraph (1) states that personal data subjects have the right to limit the processing of personal data carried out by personal data controllers and/or personal data processors if the personal data subject questions the accuracy of personal data, personal data processing errors, or the interests of the personal data controller and/ or personal data processor in processing personal data, Article 17 paragraph (1) states that the personal data subject has the right to refuse the processing of personal data carried out by the personal data controller and/or personal data processor if the processing of personal data is contrary to the constitutional rights of the personal data subject, Article 18 paragraph (1) states that personal data subjects have the right to limit the processing of personal data carried out by personal data controllers and/or personal data processors to other personal data controllers and/or personal data processors, Article 19 paragraph (1) states that data subjects Individuals have the right to object to the results of personal data processing carried out automatically by personal data controllers

and/or personal data processors, including AI. Article 20 paragraph (1) states that personal data subjects have the right to receive compensation for losses incurred as a result of personal data processing carried out by personal data controllers and/or personal data processors, Article 21 paragraph (1) states that personal data subjects have the right to obtain legal protection for violations of their rights as personal data subjects, Article 22 paragraph (1) states that personal data processing is carried out with due regard principles of personal data protection as regulated in this Law, Article 23 paragraph (1) states that the processing of personal data is carried out with clear, specific and legal objectives in accordance with the provisions of laws and regulations.

Article 24 paragraph (1) states that the processing of personal data is carried out with the consent of the subject personal data unless otherwise determined by this Law or other statutory regulations, Article 25 paragraph (1) states that the processing of personal data is carried out in an accurate, complete and up-to-date manner in accordance with the purpose of processing personal data, Article 26 paragraph (1) states that personal data control must give personal data subjects the opportunity to agree or refuse the processing of their personal data, Article 27 paragraph (1) states that personal data control must give personal data subjects the opportunity to change or renew consent in accordance with changes in the purpose of data processing personal data, Article 28 paragraph (1) states that personal data control must provide the personal data subject with the opportunity to withdraw consent at any time by notifying the personal data controller in writing or via electronic media, Article 29 paragraph (1) states that personal data control must stop the processing of specific personal data or general personal data if the personal data subject withdraws his or her consent, Article 30 paragraph (1) states that controlling specific personal data or general personal data if the personal data subject withdraws his or her consent, unless otherwise specified by law, Article 31 paragraph (1) states that personal data controllers must notify the personal data subject regarding the revocation of consent, termination of processing, deletion or destruction of specific personal data or general personal data, Article 32 paragraph (1) states that the personal data controller must notify the personal data processor regarding the withdrawal of consent, termination of processing, deletion or destruction of specific personal data or general personal data, Article 33 paragraph (1) states that the personal data controller must notify the subject personal data regarding the transfer of specific personal data or general personal data abroad, Article 34 paragraph (1) states that the personal data controller must notify the personal data subject regarding changes in the purpose of processing specific personal data or personal

data of a general nature. In general, Article 35 paragraph (1) states that personal data control regarding changes in the identity of the personal data controller or personal data processor, Article 36 paragraph (1) states that the personal data controller must notify the personal data subject regarding changes to the terms and conditions of personal data processing. specific or general personal data, Article 37 paragraph (1) states that the personal data controller must notify the personal data subject regarding changes to the privacy policy of the personal data controller or personal data processor, Article 38 paragraph (1) states that the personal data controller must notify personal data subjects regarding a breach of the security of specific personal data or general personal data. Apart from that, the regulation of the use of AI in Indonesia must also be based on ethics and human rights and pay attention to various aspects such as economic, technical, environmental, and social and cultural²².

Then the rules related to consumer protection have been regulated in Perppu Number 2 of 2022 concerning work copyright, the work copyright Perppu regulates the protection of personal data, this Perppu states that everyone has the right to the protection of their personal data which is processed electronically by business actors, the government and /or local government. Protection of personal data concerns the right to obtain compensation for losses resulting from violations of the processing of personal data; and the right to file a civil or criminal lawsuit for violations of the processing of his personal data.

Several articles governing the protection of personal data in this Perppu are in article 5 paragraph (1) letter e, which states that the processing of personal data must be carried out by taking into account the principles of fair, ethical and responsible artificial intelligence, then article 6 paragraph (2) letter c, which states that specific personal data includes biometric data, which is one type of data often used by AI. Furthermore, article 20 paragraph (1) letter c, which states that the processing of personal data must have a valid legal basis, including the consent of the personal data subject, except for the purposes of law enforcement, protection of national security, or other public interests determined by statutory regulations. invitation. Then article 21 paragraph (1), which states that the personal data subject's consent must be given voluntarily, specifically, informedly and without coercion. Furthermore, article 22 paragraph (1), which states that personal data subjects have the right to know, access, correct, update, delete and object to the processing of their personal data by personal data controllers and/or personal data processors. Then article 23 paragraph (1), which

© Author(s). This work is licensed under a Creative Commons Attribution – Non Commercial - Share A like 4.0 International License. Published by Postgraduate Program, Master of Laws, Faculty of Law, Universitas Bangka Belitung, Indonesia

Undang Undang Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi, LN No. 196 Tahun 2022, TLN No. 6820

states that personal data subjects have the right to receive compensation for losses incurred as a result of violations of the processing of their personal data by personal data controllers and/or personal data processors. Furthermore, article 24 paragraph (1), which states that personal data subjects have the right to file a civil or criminal lawsuit for violations of the processing of their personal data by personal data controllers and/or personal data processors. Then article 27 paragraph (1), which states that the processing of personal data must be carried out in a limited and specific manner in accordance with the purposes that have been determined, informed and agreed to by the personal data subject. Furthermore, article 28 paragraph (1), which states that the processing of personal data must be carried out in accordance with the purposes that have been determined, informed and agreed to by the personal data subject, and must not be carried out for other purposes that are irrelevant or excessive. Furthermore, article 29 paragraph (1), which states that the processing of personal data must be carried out using appropriate, accurate and up-to-date technology. Then article 30 paragraph (1), which states that processing of personal data must be carried out by maintaining the confidentiality, integrity and availability of personal data. Then article 31 paragraph (1), which states that personal data processing must be carried out by applying the principle of accountability, which means that personal data controllers and/or personal data processors must be able to prove compliance with the provisions of laws and regulations regarding personal data protection. Furthermore, article 32 paragraph (1), which states that the processing of personal data must be carried out by applying the principle of transparency, which means that the personal data controller and/or personal data processor must provide clear, easy to understand and easily accessible information to the personal data subject regarding the purpose., process and results of processing of personal data. Then article 33 paragraph (1), which states that processing of personal data must be carried out by applying the principle of justice, which means that personal data controllers and/or personal data processors must respect the rights and interests of personal data subjects, and not discriminate or misuse personal data. Article 34 paragraph (1), which states that personal data processing must be carried out by applying ethical principles, which means that personal data controllers and/or personal data processors must pay attention to moral values, social norms and community culture in processing data. personal. Furthermore, article 35 paragraph (1), which states that the processing of personal data must be carried out by applying the principle of responsibility, which means that the personal data controller and/or personal data processor

must be responsible for all legal consequences arising from the processing of personal data.

Then article 36 paragraph (1), which states that the processing of personal data must be carried out by applying security principles, which means that personal data controllers and/or personal data processors must protect personal data from threats, interference or damage that could compromise confidentiality, integrity, And availability of personal data. Furthermore, article 37 paragraph (1), which states that personal data processing must be carried out by applying the principle of proportionality, which means that personal data controllers and/or personal data processors must adapt personal data processing to the objectives, benefits and impacts for the personal data subject, controller personal data, personal data processors, and society. Then article 38 paragraph (1), which states that personal data processing must be carried out by applying the principle of minimization, which means that personal data controllers and/or personal data processors must limit personal data processing to only personal data that is relevant, appropriate and necessary to achieve purposes of processing personal data. Furthermore, article 39 paragraph (1), which states that the processing of personal data must be carried out by applying the principle of accuracy, which means that the personal data controller and/or personal data processor must ensure that the personal data processed is correct, complete, and up-to-date personal data. Then article 40 paragraph (1), which states that personal data processing must be carried out by applying the principle of storage limitations, which means that personal data controllers and/or personal data processors must store personal data only as long as is necessary to achieve the purpose of processing personal data, unless otherwise specified. by statutory regulations. Furthermore.

Article 41 paragraph (1), which states that the processing of personal data must be carried out by applying the principle of loyalty, which means that the personal data controller and/or personal data processor must maintain the trust of the personal data subject in processing personal data. Then article 42 paragraph (1), which states that personal data processing must be carried out by applying the principle of openness, which means that personal data controllers and/or personal data processors must provide access to personal data subjects to find out, access, correct, update, delete, and object to the processing of his personal data. And finally, article 43 paragraph (1), which states that personal data processing must be carried out by applying the principle of public interest, which means that personal data controllers and/or personal data processors must consider the public interest in processing personal data, including for law

enforcement purposes., protection of national security, public health, scientific research, statistics, history, or education.

Apart from the above matters, the Indonesian government has also provided further direction regarding the classification, registration and certification of electronic systems, including those involving AI through Government Regulation Number 71 of 2019 and Ministerial Regulation Number 5 of 2020. Although there is no law yet that regulates this specifically regarding AI, several examples of laws attached above can be quite relevant legal bases for providing guidance and legal protection for users and providers of AI technology in Indonesia.

2. The vacuum of AI law in Indonesia

As we already know based on the introduction at the beginning, legal regulations regarding AI in Indonesia already exist, but have not been specifically regulated, therefore it is necessary to establish a new law that specifically regulates AI.

In the legal discovery method, there are several methods of discovery, in this article I will use the exposition or legal construction method, this method determines. From this method, we can create rules for AI, by connecting existing regulations and then adapting them to technological developments and society's needs. This method also requires innovation and creativity in lawmaking and considers ethical, social, economic, and cultural aspects related to AI. This method can certainly produce flexible, adaptive, and comprehensive legal rules for AI.

If we talk about legal emptiness, this is of course not just the absence of regulations that regulate it, but this can also be caused by the absence of an institution that regulates this matter. In its use, AI does not yet have an institution or authority specifically tasked with supervising, controlling, and enforcing laws relating to AI in Indonesia. Even though the government has made several efforts, such as Presidential Regulation Number 39 of 2019 concerning the Agency for the Assessment and Application of Technology, in this regulation BPPT is tasked with implementing, reviewing, and disseminating technology. Then, the government has also prepared a National Action Plan for Artificial Intelligence from 2020 to 2024, which is a way to develop and utilize AI in Indonesia.

However, this is still not enough to overcome the challenges and risks that will be posed using AI. Therefore, a solution is needed to form an institution specifically tasked with supervising, controlling, and enforcing laws related to AI in Indonesia. One of the solutions I provide in this article is to adopt or adapt models that have been implemented by other countries that already have experience in regulating and supervising AI. One example that can be used as a reference is the European Commission High-Level Expert Group on Artificial Intelligence (HLEG AI), this is an expert group created by the European Commission to provide advice and recommendations regarding various parts related to AI, including ethics, policy, investment, as well as socio-economic impacts. This institution is also responsible for compiling Ethics Guidelines for Trustworthy AI, which are guidelines for developing and using AI that are based on the values and principles of human rights, law, and democracy.

CONCLUSION

Indonesia must immediately regulate specifically regarding AI, as well as regarding the challenges and opportunities that arise from the use of AI in Indonesia. From the discussion above, we can conclude that current AI regulations in Indonesia are still general in nature and do not specifically cover matters related to AI, such as accountability, ethics and data protection. Therefore, it is necessary to establish a new law that specifically regulates AI, which will be able to keep up with technological developments in line with society's needs. Apart from the need for the formation of new laws, Indonesia in enforcing laws related to AI also requires the establishment of an institution specifically tasked with, supervising, controlling and enforcing laws related to AI, including conducting, auditing, evaluating, certifying and assessing the impact of AI on society and the environment. This institution must be independent, transparent, accountable and professional, and have adequate resource authority, and be able to collaborate and coordinate with other institutions related to AI at the national, regional and international levels.

REFERENCES

Journal

Ariawan, K. (2018). Normative legal research methods. Kertha Widya, 10(2), 1-14.

Diah, I. (2020). Artificial intelligence.

Lopez-Robles, J. R. (2023). International journal of artificial intelligence research. IJAIR Journal, 7(1).

Mahardika, Z. P., & Priancha, A. (2021, April 29). Current legal arrangements

- for Indonesian artificial intelligence. Hukumonline.
- Ramadhan, G. D. (2022). Legal protection for artificial intelligence inventions in the era of industrial revolution 4.0 & society 5.0 (Thesis, Islamic University of Indonesia).
- Rahman, A. (2013). Normative legal research methods (Thesis, Faculty of Sharia, Maulana Malik Ibrahim State Islamic University Malang).
- Russell, S., & Norvig, P. (2020). Artificial intelligence: A modern approach (4th ed.).
- Santoso, B. (2019). Artificial intelligence as a legal subject: A conceptual and normative review. Theater Scripts, 9(2), 1-14.
- Saplaw. (2019, October 23). The statutory approach in legal research. Saplaw.
- Saputra, R. (2018). Normative legal research methods (Thesis, Faculty of Law, Muhammadiyah University of Yogyakarta).
- Sia, V. (2023). Application of artificial intelligence in the business world. Jurnal.id.
- Sukma, I. B. (2018). Legal regulation of consumer protection in online transactions (Dissertation, Postgraduate Program, Udayana University).
- Wisnu Yudoprakoso, P. (2019). Artificial intelligence (artificial intelligence) as a tool to assist the process of drafting laws in facing the industrial revolution 4.0 in Indonesia. Trunojoyo Madura University Scientific Journal, 1(1).
- Asshiddiqie, Jimly. "The Concept of Constitutional State in Indonesia." Jurnal Konstitusi 16, no. 1 (2019): 1-26.
- Khoo, R. H. K., S. M. A. R. A. H., M.S., & Ph.D. (2019). The impact of technology on society: A review of the literature. International Journal of Technology and Society, 12(2),
- Wirasaputra, A. (2023). Dampak dari perkembangan teknologi informasi dan komunikasi. Jatimika: Jurnal Kreativitas Mahasiswa Informatika, 8(2), 1-12.
- Sulistyaningrum, N., & Nugroho, A. (2023). Dampak penggunaan teknologi informasi dan komunikasi terhadap perilaku sosial siswa di SMP Negeri 1 Wonogiri. Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan, 9(1), 1-
- Arief, M., Rifqi, M., & Kurniawan, A. T. (2020). Pengaruh Teknologi Internet of Things (IoT) terhadap Efisiensi Operasional pada Industri Manufaktur. Jurnal Ilmiah Teknologi Industri, 18(1), 30-37.

Constitution

- Law Number 11 of 2008 concerning Electronic Information and Transactions as amended by Law Number 19 of 2016. (2016). State Gazette of the Republic of Indonesia Number 251 of 2016, Supplement to State Gazette of the Republic of Indonesia Number 5952.
- Law Number 27 of 2022 concerning Personal Data Protection. (2022). State Gazette of the Republic of Indonesia Number 196 of 2022, Supplement to State Gazette of the Republic of Indonesia Number 6820.

Government Regulation in Lieu of Law Number 2 of 2022 concerning Job Creation. (2022). State Gazette of the Republic of Indonesia Number 196 of 2022, Supplement to State Gazette of the Republic of Indonesia Number 6820.