

Legal Reform of Artificial Intelligence's Liability to Personal Data Perspectives of Progressive Legal Theory

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Abstract

Advances in technology help people carry out their activities more easily. One of them is artificial intelligence which is used in various fields. However, the use of Artificial Intelligence has a negative impact, such as the emergence of Artificial Intelligence actions that violate ethics, legal regulations, or harm other parties that must be accounted for. The purpose of the research is to find out the legal liability of Artificial Intelligence for misuse of personal data based on progressive legal theory and the protection of personal data against the use of Artificial Intelligence based on Law Number 27 of 2022. The research method used normative legal research focuses on active legal inventories, legal principles and doctrines, legal discovery in specific cases, legal systems, levels of uniformity, comparative law and legal history. The research

found that the use of Artificial Intelligence in collecting and analyzing personal data can threaten individual privacy. Indonesia already has Law Number 27 of 2022 concerning Personal Data Protection, for the application and implementation of the law there is no governing Government Regulation, so that the legal protection provided is still not optimal. For this reason, it is necessary to have laws and regulations that specifically regulate the use of Artificial Intelligence, so that violations of the law that result in losses due to the use of Artificial Intelligence that can collect and analyze personal data can be held legally responsible.

Keywords

Legal Reform, Legal Liability, Artificial Intelligence, Personal Data, Progressive Legal Theory

Introduction

Artificial intelligence, also known as Artificial Intelligence, is basically a "*machine*" that is able to do various things that are considered to require intelligence when humans operate it¹. Artificial Intelligence is a technology structured in computer systems to solve problems by imitating human actions. The imitation action performed by Artificial Intelligence can be in the form of learning from information data, drawing conclusions and making improvements independently without the help of other parties².

Many Indonesian entrepreneurs are developing and integrating Artificial Intelligence technology into their production processes. This is not without enthusiasm as the majority of strategic business sectors utilizing Artificial Intelligence include healthcare, banking and e-commerce. Conveniences, such as access and accelerated information

¹ Febri Jaya and Wilton Goh, "Analisis Yuridis terhadap Kedudukan Kecerdasan Buatan atau Artificial Intelligence sebagai Subjek Hukum pada Hukum Positif Indonesia", *Jurnal Supremasi Hukum* 17, no. 2 (2021): 1-11, <https://doi.org/https://doi.org/10.33592/jsh.v17i2.1287>

² Rafki Fachrizal, "Apa Itu Teknologi Artificial Intelligence?", 7 September 2021, <https://infokomputer.grid.id/read/122878703/apa-itu-teknologi-artificial-intelligence?page=all>, Accessed on 10 November 2023

flow, can accelerate human performance, while acting as a business and educational tool can also encourage people to further develop their ideas in the development of Artificial Intelligence technology³.

The development of Artificial Intelligence technology is not only a technological paradigm shift but also a socio-legal paradigm shift. Indonesia, like many other countries, is endeavouring to regulate and guide the ethical use of Artificial Intelligence in various sectors⁴. In addition, one of the potential crimes related to the development of technology and information also occurs in the field of data and information management, especially the management of personal data that needs to be protected. Advances in information and communication technology have made the boundaries of privacy increasingly thin. Various personal data are spread more and more easily⁵.

But besides all that, the most important factor is data security. In terms of business owner data security and consumer data security, it is equally important. In a personal or professional context, data privacy and security are important issues. Of course, publicly sharing valuable and sensitive information with unauthorized people is extremely risky. The data security information of a system plays an important role in ensuring the authenticity of data that cannot be easily altered by irresponsible individuals. Even when data security measures such as passwords are in place, hackers can still access the original data, which is a common cause of problems.

International law has an impact on the regulation of AI, applicable treaties create issues, and discussions on global intellectual

³ Vika Oktallia and I Gede Putra Ariana, "Perlindungan terhadap Korban Penyalahgunaan Teknik Deepfake terhadap Data Pribadi", *Jurnal Kertha Desa* 10, no. 11 (2022): 1252-1263, <https://ojs.unud.ac.id/index.php/kerthadesa/article/view/93672>

⁴ Muhamad Ammar Muhtadi and Sahrul Sahrul, "Hukum Perlindungan Konsumen dan Etika Bisnis di Era Teknologi Kecerdasan Buatan: Perlindungan Pengguna dan Tanggung Jawab Perusahaan", *Jurnal Hukum dan HAM Wara Sains* 2, no. 9 (2023): 922-930, <https://doi.org/10.58812/jhhws.v2i09.674>

⁵ Normand Edwin Elnizar, "Perlindungan Data Pribadi Tersebar di 32 UU, Indonesia Perlu Regulasi Khusus", <https://www.hukumonline.com/berita/baca/lt5d1c3962e01a4/perlindungan-data-pribadi-tersebar-di-32-uu--indonesia-perlu-regulasi-khusus/>, Accessed on 10 November 2023

property rights protection for AI-generated creations and innovations. At the same time, countries have legal powers as stipulated in international law. These statutory restrictions are considered as a means to regulate the use of artificial intelligence⁶

This indicates the need to re-evaluate the entire legal system due to the possibility that rules can be created by artificial intelligence. The current legal definition of artificial intelligence aims to establish proper linkages and requires further clarification. The author suggests introducing a new category of legal subjects, which could be referred to as "virtual entities" and would specifically refer to artificial intelligence, in contrast to the term "digital person" used to refer to humans as legal subjects in virtual reality⁷.

In the era of advanced information technology, personal data such as names, email addresses, mobile phone numbers are very valuable data because they can provide economic value in the business world. This data is stored in what is called a digital record or digital file is a collection of personal information belonging to most or almost all users of internet technology developed by private parties, which is at risk of being violated, severely violating a person's right to privacy regarding personal data⁸.

In addition to technological complexity, personal data or information stored on electronic media is a valuable asset and vulnerable to data leakage by third parties. However, with such sophistication, people will find it easier to carry out their daily activities more comfortably and effectively⁹. Personal data protection is closely related

⁶ Mark Chinen, Chapter 6: AI and International Law, in Monograph Book the International Governance of Artificial Intelligence, (June 2023), 178-202, <https://doi.org/10.4337/9781800379220.00013>

⁷ Andrey V. Skorobogatov and Alexandr V. Krasnov, "Law Nature of Artificial Intelligence", *Journal Problems of Information Society* 14, no. 1 (2023): 3-13, <http://doi.org/10.25045/jpis.v14.i1.01>

⁸ Kuku Tejomurti, et.al, "Legal Protection for Urban Online-Transportation-User's Personal Data Disclosure in the Age of Digital Technology", *Padjadjaran Journal of Law* 5, no. 3 (2018): 485-505, <https://doi.org/10.22304/pjih.v5n3.a5%0D>

⁹ Endison Ravlindo and Ariawan Gunadi, "Perlindungan Hukum terhadap Data Kesehatan melalui Pengesahan Rancangan Undang-Undang Perlindungan Data Pribadi", *Jurnal Hukum Adigama* 4, no. (2021): 4748-4769, <https://journal.untar.ac.id/index.php/adigama/article/view/18028/9994>

to the concept of privacy, which requires the protection of its confidentiality. Warren and Brandeis were the first to introduce the concept of privacy in a scientific journal entitled *The Right to Privacy*, which means the right not to be disturbed. It is said in the press that everyone who carries out activities has the right to have their privacy protected¹⁰.

Before Artificial Intelligence can perform analyses and make decisions, data, facts, and information must first be fed into the Artificial Intelligence system. This data and information allow Artificial Intelligence to function as the intelligence of human intelligence. However, the similarity in capacity does not necessarily mean that Artificial Intelligence is recognized as a legal subject capable of performing legal acts, establishing legal relationships, and causing physical legal consequences¹¹.

Biometric data, according to the applicable legal regulations in Indonesia, is classified as personal data, namely personal data of a certain nature, this is in accordance with Article 4 paragraph (2) of Law Number 27 of 2022 concerning Personal Data Protection. Based on this provision, provisions related to personal data protection related to biometric data will apply, one of which is related to the consent of the data owner in processing personal data, where based on the applicable provisions, the consent is only inherent in the data owner, as stipulated in Article 20 paragraph (2) of Law Number 27 of 2022 concerning Personal Data Protection. Simply by collecting data without the consent of the data owner, under Indonesian law, Artificial Intelligence violates the regulations regarding consent to the processing of personal data. If a violation occurs, there needs to be a party responsible for the loss of the violation that occurred, but on the other hand, the legal situation of Artificial Intelligence cannot be equated with humans or human ethics, which raises the question of which party is responsible for collecting data without the consent of the data owner by Artificial Intelligence¹².

¹⁰ Rosalinda Elsina Latumahina, "Aspek Hukum Perlindungan Data Pribadi di Dunia Maya", *Jurnal Gema Aktualita* 3, no. 2 (2014): 14-25, <https://adoc.pub/aspek-hukum-perlindungan-data-pribadi-di-dunia-maya.html>

¹¹ Victor Amrizal and Qurrotul Aini, *Kecerdasan Buatan*, (Jakarta: Moeka Publishing, 2014), pp.12

¹² Miyuki Fattah Rizki and Abdul Salam, "Pertanggungjawaban Hukum Pengumpulan Data Biometrik Melalui Artificial Intelligence Tanpa Persetujuan

Actions taken by Artificial Intelligence do not always bring benefits and positive impacts. It is not uncommon for Artificial Intelligence to take actions that are not in accordance with orders, and can even cause harm to others. Actions that violate ethical and legal norms require accountability, especially if they cause harm to other parties. Unfortunately, Indonesian positive law does not recognize Artificial Intelligence as a legal subject¹³. Regulation of liability for the actions of Artificial Intelligence is now necessary, especially in the context of the current technological breakthrough of digitalization.

Normative law research uses normative case studies in the form of legal behavior products, such as legal studies. The object of research is law which is conceptualized as norms or rules that apply in society and become a reference for community behavior. Therefore, normative legal research focuses on active legal inventories, legal principles and doctrines, legal findings in certain cases, legal systems, levels of uniformity, comparative law and legal history¹⁴. In normative legal research, there are a number of approaches used by researchers to obtain information from various points of view that are relevant to the questions they are trying to answer. The approach in this research is a statutory approach¹⁵.

Legal Liability of Artificial Intelligence for Misuse of Personal Data Based on Progressive Legal Theory

The use of artificial intelligence in collecting and analyzing personal data raises serious concerns about individual privacy. The study by Cynthia Dwork, Frank McSherry, Kobbi Nissim and Adam Smith revealed that the use of Artificial Intelligence in this context may

Pemilik Data (Studi Kasus Clearview AI Inc. di Yunani dan Inggris)", *Jurnal Le Patrimonium* 2, no. 2 (2023): 1-16, <https://scholarhub.ui.ac.id/lexpatri/vol2/iss2/9/>

¹³ Shabrina Fadiyah Ghazmi, "Urgensi Pengaturan Artificial Intelligence pada Sektor Bisnis Daring di Indonesia", *Rewang Rencang: Jurnal Hukum Lex Generalis* 2, no. 8 (2021): 782-803, <https://doi.org/10.23920/jbmh.v6i2.355>

¹⁴ Abdulkadir Muhammad, *Hukum dan Penelitian Hukum*, (Bandung: Citra Aditya Bakti, 2004), pp. 52

¹⁵ Peter Mahmud Marzuki, *Penelitian Hukum*, (Jakarta: Kencana, 2008), pp. 29

increase the risk of privacy breaches¹⁶. One of the main reasons why the use of AI can pose a threat to personal privacy is its ability to identify patterns in personal data. Artificial Intelligence algorithms can analyze data with a level of accuracy and speed that traditional methods cannot achieve. However, during this process, sensitive information contained in personal data may be disclosed without the consent or knowledge of the data subject¹⁷.

The increasing use of artificial intelligence in both the private and public sectors raises concerns about the transparency of such systems' activities, especially when they make their own decisions. This affects not only citizens, but also lawyers working in the field. An encounter regarding the potential application of artificial intelligence in law enforcement can be illustrative¹⁸. As the development of artificial intelligence becomes more and more complex, humans will face difficulties in understanding how its internal functions work. This not only raises the fear of the unknown, which has been a part of human consciousness for a long time¹⁹, but also raises concerns that the shift to automated learning and self-organizing systems will cause humans to lose their place in the world²⁰.

Artificial intelligence is a computer programme that can operate machines like human intelligence²¹. Artificial Intelligence can act like

¹⁶ Cynthia Dwork, Frank McSherry, Kobbi Nissim and Adam Smith, "Calibrating Noise to Sensitivity in Private Data Analysis", *Journal of Privacy and Confidentiality* 7, no. 3 (2016): 17-51, <https://doi.org/10.29012/jpc.v7i3.405>

¹⁷ Siti Masrichah, "Ancaman dan Peluang Artificial Intelligence (AI)", *Khatulistiwa: Jurnal Pendidikan dan Sosial Humaniora* 3, no. 3 (2023): 83-101, <https://doi.org/10.55606/khatulistiwa.v3i3.1860>

¹⁸ A.G. Samusevich, "Digital Law Enforcement: Theory and Practice". *Siberian Law Herald* 4, no. 99, (2022): 22-28, <http://dx.doi.org/10.26516/2071-8136.2022.4.22>

¹⁹ V.V. Bocharov, "Power and Taboo: On the Cultural-Psychological Sources of Traditionalism", *Journal Cultural-Historical Psychology* 13, no. 4, (2017): 109:117, <http://dx.doi.org/10.17759/chp.2017130412>

²⁰ Vicent C Muller, "Ethics of artificial intelligence". In Elliott A. (ed.) *The Routledge Social Science Handbook of AI: Part I: Social Science Approaches to Artificial Intelligence*, (London: Routledge, 2021), pp. 122-137.

²¹ Hakim Agung Ramadhan and Dinita Andriani Putri, *Big Data, Kecerdasan Buatan, Blockchain, dan Teknologi Finansial di Indonesia: Usulan Desain, Prinsip,*

human intelligence indirectly allowing Artificial Intelligence to be recognized as a legal subject like humans. The intelligence possessed by Artificial Intelligence to answer questions, execute commands, make decisions, and other human actions must be preceded by human actions in the form of data input into the knowledge base. The knowledge base includes facts, theories, thoughts, and relationships between things²².

Artificial intelligence technologies are becoming increasingly common in everyday life and have the potential to transform many aspects of society, including the legal system. While artificial intelligence has the possibility to support the rule of law, it also poses great challenges and risks, particularly in terms of bias and discrimination. To ensure that Artificial intelligence is compatible with the rule of law, a comprehensive and interdisciplinary approach is required that considers the legal, moral, social, and technical aspects of Artificial intelligence²³.

The presence of Artificial Intelligence certainly has a huge impact on human life, so it can have a disruptive impact on various social structures of society²⁴. Artificial intelligence can now use thoughts like humans. Although artificial intelligence was created by humans, it is not impossible to be smarter than the humans who created it. As humans today are smarter than their ancestors, for example Einstein was smarter than his parents²⁵. Therefore, it is not impossible for artificial intelligence to commit criminal offences.

Nowadays, it is worth remembering that the rapid development and widespread development of artificial intelligence leads to the

dan Rekomendasi Kebijakan, (Jakarta: Kajian CIPG untuk Direktorat Jenderal Aplikasi Informatika Kementerian Komunikasi dan Informatika Republik Indonesia, Centre for Innovation Policy and Governance (CIPG), 2018), pp.19-20.

²² Amrizal and Aini, *Kecerdasan Buatan*, pp. 12-15.

²³ Syed Hassan Gilani, et.al, "Artificial Intelligence and The Rule of Law: A Critical Appraisal of a Developing Sector", *Pakistan Journal of Social Research* 5, no.2 (2023): 743-750, <http://dx.doi.org/10.52567/pjsr.v5i02.1156>

²⁴ Eka Nanda Ravizki and Lintang Yudhantaka, "Artificial Intelligence sebagai Subjek Hukum: Tinjauan Konseptual dan Tantangan Pengaturan di Indonesia", *Jurnal Notaire* 5, no. 3 (2022): 351-376, <https://doi.org/10.20473/ntr.v5i3.39063>

²⁵ Stephen Hawking, "Will Artificial Intelligence Outsmart Us?" <https://www.amazon.com/Will-Artificial-Intelligence-Outsmart-Us/dp/1529392403>, Accessed on 20 November 2023

emergence of decision-making opportunities that are undetermined by the original algorithm. This is especially true for independent learning methods²⁶. Perhaps we need to agree that artificial intelligence will have different levels of prestige, depending on its technical characteristics²⁷. Depending on the interpretation, in certain situations, it can become an object, while in other situations, it becomes a subject²⁸.

Artificial Intelligence actions that result in losses such as data leakage or other irregularities may be caused by mismatches in the processing of machine commands. There are at least two possibilities that arise. Firstly, the command given does not match or is imperfect with the input data on the machine, so the inference engine cannot process it correctly. Secondly, initial human negligence when inputting data can also be the cause, especially due to errors during machine training and programming errors²⁹.

There are at least two types of artificial intelligence that can be talked about: artificial intelligence that serves to process, refine, or reproduce information, and artificial intelligence that generates its own information and engages in communication. The former works as a receiver of the law, while the latter can be considered a doer. Although it is assumed that artificial intelligence has capabilities partly based on autonomy³⁰, we are not comparing the concepts of "human" and "artificial intelligence". At this last stage of technical and social development, humans cannot be equated either biologically or socio-communicatively.

²⁶ Ryan Abbot, "I Think, Therefore I Invent: Creative Computers and the Future of Patent Law", *Boston College Law Review* 57, no. 4, (2016): 1079-1126, <https://dx.doi.org/10.2139/ssrn.2727884>

²⁷ A. Atabekov and O. Yastrebov, "Legal Status of Artificial Intelligence Across Countries: Legislation on the Move", *European Research Studies Journal* 21, no. 4, (2018): 773-782, <https://dx.doi.org/10.35808/ersj/1245>

²⁸ Vasily Laptev, "Artificial Intelligence and Liability for its Work", *Journal of the Higher School of Economics* 2, no. 2, (2019): 79-102, <http://dx.doi.org/10.17323/2072-8166.2019.2.79.102>

²⁹ Soner Yildirim, "Data Leakage in Machine Learning", <https://towardsdatascience.com/data-leakage-in-machine-learning-6161c167e8ba>, Accessed on 20 November 2023

³⁰ Tim Mulgan, "Corporate Agency and Possible Futures", *Journal of Business Ethics* 154, no. 4, (2019): 901-916, <http://dx.doi.org/10.1007/s10551-018-3887-1>.

At the level of legislation, it is very important to establish the principles and conditions for the use of this technology. The characteristics of the specific system and the particular technology used should be regulated at the level of laws and technical regulations that deal with the specialized relationships associated with the use of artificial intelligence³¹.

Currently, artificial intelligence is available and can be used as a legal subject. However, there are no rules governing artificial intelligence to commit criminal offences that can really cause chaos. In essence, changes to the law must remain in line with the progressive legal theory initiated by Satjipto Raharjo. Progressive legal theory asserts that laws are made for humans, not humans for laws³². Regulations related to artificial intelligence must exist to protect humans from chaos due to the absence of rules governing something.

In its regulation, the Asilomar Artificial Intelligence Principles can be a reference and basic principle in drafting laws and regulations. The Asilomar Artificial Intelligence Principles regulate matters ranging from ethics and values to matters that need to be considered as long-term issues related to artificial intelligence. This can be seen from the purpose of research related to artificial intelligence must be directed so that it is not made for intelligence (military) purposes, but intelligence that can be profitable. This includes funding for research to ensure beneficial use. This principle also governs³³:

- (a) A policy and science relationship in which there should be constructive and healthy exchanges between artificial intelligence researchers and policymakers;
- (b) The culture of artificial intelligence-related research is developed in the nuances of a culture of co-operation, trust and transparency fostered between researchers and artificial intelligence developers;
- (c) Avoidance of racial favouritism, prioritization of security, transparency when things go wrong, as well as judicial transparency,

³¹ A.V. Minbaleev, "The Concept of "Artificial Intelligence" In Law", *Journal of Udmurt University Series Economics and Law* 32, no. 6, (2022): 1094-1099, <https://doi.org/10.35634/2412-9593-2022-32-6-1094-1099>

³² Satjipto Rahardjo, *Hukum Progresif*, (Yogyakarta: Genta Press, 2009), pp. 72-73.

³³ FL. Yudhi Priyo Amboro and Khusuf Komarhana, "Prospek Kecerdasan Buatan sebagai Subjek Hukum Perdata di Indonesia", *Jurnal Law Review* 21, no. 2 (2021): 145-172.

- responsibility, alignment with human values, including attention to the ideals of human dignity, rights, freedoms and cultural diversity;
- (d) Personal privacy, liberty and privacy, mutual benefit and prosperity and also artificial intelligence that can be controlled by humans. Artificial intelligence also does not want to damage social and societal processes; and
 - (e) Prohibit competition in weapons using artificial intelligence, while paying particular attention to the development and capabilities of artificial intelligence as it is infinite. This principle reaffirms important concerns about the sustainability of artificial intelligence with all its risks, especially the increased potential for self-recursion or self-replication. The principles also state that artificial intelligence is intended for the common good of all humanity.

When considered, these principles actually prioritize human presence, responsibility and oversight of artificial intelligence without prohibiting the development of such technology.

The law is finally responding to changes in technology and science. Despite its conservative outlook, change has already begun thanks to developments in the field of Artificial Intelligence. Artificial Intelligence technology is automating the work usually done by conservative legal personnel, thus creating a new industry known as Legal Technology³⁴.

Artificial intelligence systems can collect and store a large amount of users' personal information. In addition, attacks on artificial intelligence systems pose threats to data security, system damage, and other unintended negative impacts. Several ethical concerns have arisen with the advancement of artificial intelligence, including the potential risks of its misuse and the obligations owed by the creators and users of such technology. Inequities in governance and formalized controls in the artificial intelligence research and implementation sector have led to a rapidly evolving set of standards and methods³⁵.

Artificial intelligence, not humans, cannot in fact take responsibility for their actions. In addition, artificial intelligence also

³⁴ Young-Yik Rhim & Kyung Bae Park, "The Artificial Intelligence in International Law", *Book Chapter Revolutionary Approach to International Law*, (2023): 215-237, https://doi.org/10.1007/978-981-19-7967-5_11

³⁵ Clair Apodaca, "The Rule of Law and Human Rights", *Journal Judicature* 87, no. 6, (2004): 292-299.

lacks the soul necessary to determine the guilt of a crime. However, with the principle of vicarious liability in contrast to the principle of fault, there is a possibility that artificial intelligence is responsible for its actions³⁶. The principle of vicarious liability was originally only applied in civil law as a law of compensation³⁷. But over time, the principle of vicarious liability can now be applied in criminal law. Vicarious liability is vicarious responsibility, specifically the responsibility of a person for the acts committed by another person. The principle of vicarious liability is an exception to the principle of no fault, because it can ensnare people who have a right to the crimes committed by others.

The current regulation only stipulates that natural persons and legal entities are legally recognized entities under Indonesian law and does not define artificial intelligence within the scope of legal entities, thus imposing liability recognized under Indonesian law only on these two, the only legal subjects so far. However, current legal doctrine makes it clear that the actions of Artificial Intelligence can still give rise to liability. In this case, the doctrine of vicarious liability applies. This doctrine essentially states that another person can be held liable for the actions or wrongs committed by another person (or entity). Vicarious Liability is a form of secondary or indirect liability that arises when the parties have a certain relationship³⁸.

There are at least two factors that determine the existence of vicarious liability. First, there is a special relationship between the superior and the subordinate, so that the illegal behaviour of the subordinate must be work-related. Second, the act must occur during the course of employment. This allows the company, as the employer

³⁶ Chiquita Thefirstly Noerman and Rosalia Dika Agustanti, "Pertanggungjawaban Artificial Intelligent sebagai Subjek Hukum yang Melakukan Tindak Pidana Korupsi", *Jurnal Hukum Samudra Keadilan* 18, no. 2 (2023): 388-405, <https://doi.org/10.33059/jhsk.v18i2.8722>

³⁷ Fines Fatimah and Barda Nawawi Arief, "Pertanggungjawaban Pengganti (Vicarious Liability) dalam Kebijakan Formulasi Hukum Pidana di Indonesia", *Jurnal Law Reform* 7, no. 2 (2012): 1-42, <https://doi.org/10.14710/lr.v7i2.12408>

³⁸ Justia.com, Vicarious Liability/Respondeat Superior, <https://www.justia.com/injury/negligence-theory/vicarious-liability-respondeat-superior/>, Accessed on 20 November 2023

or the subordinate, to remain liable for errors, omissions or unlawful acts that cause harm to others³⁹.

Vicarious liability can be used to address Artificial Intelligence actions or actions that cause harm or violate the law⁴⁰. The company acts as vicarious liability because Artificial Intelligence is not classified as a legal entity, either an individual or a legal entity, so that those who can be held liable for the actions of Artificial Intelligence are individuals or legal entities who have provided input data and knowledge, given orders to Artificial Intelligence or to individuals or legal entities on whose behalf Artificial Intelligence acts, whether the action is planned or planned⁴¹. This is as stipulated in Article 47 of Law Number 27 of 2022, which states that the Controller of Personal Data shall be responsible for the processing of Personal Data and demonstrate accountability in fulfilling the obligation to implement the principles of Personal Data Protection.

Based on Satjipto Rahardjo's progressive legal theory, the law must be at the forefront in regulating the advancement of artificial intelligence to fulfil Indonesia's future needs. This theory is based on the basic assumption that the law is for the people and not the other way round. Whenever there are problems within and with the law, it is the law that is changed and fixed, not the people who are forced into the legal system. The law should be seen as an institution that aims to lead society towards a just, prosperous and happy life. Therefore, law is always in the process of becoming or law as a process, law in the making⁴².

According to Satjipto Raharjo, in his progressive legal theory, he argues that progressive law is a law that has freedom of legal thinking and action, as long as it has the ability to liberate the law to serve

³⁹ Iskandar D.P., "Benarkah Perusahaan Bertanggung Jawab Atas Kesalahan Pekerjaannya?", <https://bplawyers.co.id/2017/08/28/benarkah-perusahaan-bertanggung-jawab-atassemua-kesalahan-pekerjanya/>, Accessed on 20 November 2023

⁴⁰ Ghazmi, "Urgensi Pengaturan Artificial Intelligence pada Sektor Bisnis Daring di Indonesia", pp. 791-780.

⁴¹ Paulius Cerka, Jurgita Grigiene, and Gintare Sirbikyte, "Liability for Damages Caused by Artificial Intelligence", *Computer and Law Security Review* 31, no. 3 (2015): 376-389, <https://doi.org/10.1016/j.clsr.2015.03.008>

⁴² Satjipto Rahardjo, *Hukum Progresif: Sebuah Sintesa Hukum Indonesia*, (Yogyakarta: Genta Publishing, 2009), pp. 6-10.

humanity⁴³. Of course, this is in accordance with the rule of law that applies in a country where the rule of law has the freedom to interpret the purpose of its application in society.

With this (personal) philosophy, he is considered the defining and guiding point of progressive law. The mission of the law is to serve society, not the other way round, so the law is not an independent institution that has human interests. The quality of law is determined by its ability to serve human welfare. This causes progressive law to embrace the ideology that law is beneficial to justice and law is beneficial to the people⁴⁴.

These changes demonstrate the importance of improving not only legal regulations, but also legal principles, including:

- 1) It is necessary to consider whether digital entities have legal subjects within the existing legal system, or whether a standalone legal system should be created where artificial intelligence will be the main focus. In this latter situation, it is also necessary to resolve the issue of the sources of the legal system⁴⁵;
- 2) It is necessary to solve the problem of identity and self-recognition in the context of artificial intelligence, taking into account its possible subjectivity in the digital and real world. It is important to remember that social control and regulation systems will be re-examined. Only by involving public participation are these mechanisms fundamentally altered by the presence of artificial intelligence as a pseudo-subject. Artificial intelligence capabilities have begun to be applied in regulation and control in greater detail, and are becoming an important part of the reality construction process⁴⁶.

⁴³ Satjipto Rahardjo, *Hukum Progresif Sebagai Dasar Pembangunan Ilmu Hukum, dalam buku Menggagas Hukum Progresif Indonesia*, (Semarang: Kerjasama Pustaka Pelajar, IAIN Walisongo dan Program Doktor Ilmu Hukum UNDIP, 2006), pp. 132-135.

⁴⁴ Satjipto Rahardjo, *Negara Hukum yang Membahagiakan Rakyatnya*, (Yogyakarta: Genta Publishing, 2009), pp. 65

⁴⁵ Ernst, C, Artificial Intelligence and Autonomy: Self-Determination in the Age of Automated Systems. In: Wischmeyer, T., Rademacher, T. (eds.) *Regulating Artificial Intelligence*, Cham: Springer, (2020): 53-73, http://dx.doi.org/10.1007/978-3-030-32361-5_3

⁴⁶ Skorobogato and Krasnov, "Law Nature of Artificial Intelligence"

From this perspective, the legal system is not a tree of protection but a tool that needs to be sanctified and serve human interests. Progressive Law is built on 2 (two) foundations, namely: (1) There needs to be constant attention on how to encourage laws that provide better service to the state. (2) The desire to encourage people that there is no time to stop the law, but people still want the law to do something to improve the situation⁴⁷. The absence of regulations governing the responsibility of Artificial Intelligence and its identification as a legal subject from a legal perspective may be a factor to consider for the development of progressive law in the future, considering that advances in technology and information allow everything to be done through Artificial Intelligence as an intermediary.

Protection of Personal Data on the Utilization of Artificial Intelligence Based on Law Number 27 of 2022

A fair artificial intelligence system relies on its creators taking care in selecting the data used to train it. They need to be aware of possible inequalities in the data and take steps to correct them. Methods such as data enhancement and oversampling can be applied to better represent underrepresented populations in statistical analyses. AI system planners also need to seriously consider the algorithms and models they choose in order to reduce any possibility of discrimination or prejudice. The use of techniques such as obviousness tests and fairness measures can provide deeper insights into how the system reaches its conclusions⁴⁸.

Initially, artificial intelligence's ability to analyze a problem arises from the input of initial data, algorithms and computer programs designed by humans. Then, artificial intelligence programmes "*learn*" from various possibilities and simulate events collected in large and

⁴⁷ Satjipto Rahardjo, "Arsenal Hukum Progresif", *Jurnal Hukum Progresif* 3, no. 1 (2007): 1, <https://doi.org/10.14710/hp.3.1.1>

⁴⁸ Penelope Simons And Melisa Handl, "Relations of Ruling: A Feminist Critique of The United Nations Guiding Principles on Business and Human Rights and Violence Against Women in the Context of Resource Extraction", *Canadian Journal of Women and the Law* 34, no. 1, (2022): 113-150, <http://dx.doi.org/10.3138/cjwl.31.1.06>

heterogeneous data, so that artificial intelligence can identify, predict and even prevent personal data leakage⁴⁹.

In addition, with the use of new technologies such as Big Data, Artificial Intelligence, Machine Learning, and others, there are also security factors that the state must consider when processing the personal data of people using these technologies. This is due to potential threats to privacy and personal data, such as hacking or misuse of personal data collected using these new technology⁵⁰.

Laws and regulations related to data privacy, cyber security, and protection from discrimination when developing artificial intelligence systems. AI implementation is conducted in accordance with all applicable laws and regulations. This involves complying with rules regarding data security, discrimination, and other applicable laws. To ensure that systems are developed and run in accordance with applicable laws and regulations, it may be necessary to conduct legal research and involve legal experts. Developers should also check that personal data used by artificial intelligence systems is obtained and stored in accordance with the law. The protection of user privacy can be realized through user consent, data anonymization and restrictions on data use. These measures can be taken to secure the security of user information⁵¹.

Data protection generally refers to the practices, safeguards, and binding rules implemented to protect personal information and ensure that data subjects retain control over their information. In short, data owners can decide whether they want to share certain information, who has access to it, for how long, and for what reason⁵².

⁴⁹ Kirana Rukmayuninda Ririh et al., 2020, "Studi Komparasi dan Analisis Swot pada Implementasi Kecerdasan Buatan (Artificial Intelligence) di Indonesia", *Jati Undip: Jurnal Teknik Industri* 15, no. 2 (2020): 122-133, <https://doi.org/doi.org/10.14710/jati.15.2.122-133>

⁵⁰ Faiz Rahman, "Kerangka Hukum Perlindungan Data Pribadi dalam Penerapan Sistem Pemerintahan Berbasis Elektronik di Indonesia", *Jurnal Legislasi Indonesia* 18, no. 1 (2021): 81-102, <https://doi.org/10.54629/jli.v18i1.736>

⁵¹ Mariarosario Taddeo and Luciano Floridi, "How AI Can Be a Force for Good", *Perspective Artificial Intelligence* 361, no. 6404, (2018): 751-752, <https://doi.org/10.1126/science.aat5991>

⁵² Wahyudi Djafar, "Hukum Perlindungan Data Pribadi di Indonesia: Lanskap, Urgensi, Dan Kebutuhan Pembaharuan", *Online at* <https://referensi.elsam.or.id/wp-content/uploads/2020/04/hukum-perlindungan-data-pribadi-di-indonesia-wahyudi-djafar.pdf>, accessed on 26 november 2023

There are three important principles when it comes to privacy. The first principle is the "right to privacy", which is a basic principle in people's private lives. There are four types of violations of one's privacy, namely displaying one's image in the wrong place (e.g. using one's photo to depict domestic violence), displaying one's identifying personal information data, especially one's name or phone number for commercial purposes, posting "embarrassing" content about one's personal data, making it public and not leaving one alone. The second principle concerns a person's personal data when it is written by another person, such as medical records, a person's habits, tax information, insurance information, criminal record information. This information can be misused by the party collecting or processing the data, which is a violation of the owner's right to privacy. The third principle, is the confidentiality of one's online communications⁵³. In certain circumstances, the interception of a person's electronic communications by another person may constitute a violation of the right to privacy⁵⁴.

The concept of privacy through the protection of personal data attached to each person is then divided into several categories, specifically⁵⁵:

1. Information privacy
This includes information privacy regarding various personal information of a person, such as personal data, medical records, emails, encryption of electronic data of death.
2. Right to physical privacy
This includes the right to privacy in terms of freedom from government pressure, search and seizure that applies to individuals exercising the right to free speech in public.
3. Right to privacy to know one's identity
This includes the right to privacy to determine one's identity, which means that everyone has the freedom to determine what they want

⁵³ Tejomurti, et.al, "Legal Protection for Urban Online-Transportation-User's Personal Data Disclosure in the Age of Digital Technology".

⁵⁴ Fanny Priscyllia, "Perlindungan Privasi Data Pribadi Perspektif Perbandingan Hukum", *Jurnal Jatiswara* 34, no. 3 (2019): 239-249, <https://jatiswara.unram.ac.id/index.php/js/article/view/218>

⁵⁵ Danrivanto Budhijanto, "The Present and Future of Communication and Information Privacy in Indonesia", *Jurnal Hukum Internasional Universitas Padjadjaran* 2, no. 2 (2003): 140.

without the intervention of other parties, for example abortion, suicide, conversion, transgender.

4. Property security

This includes security of property ownership, which is the right of every person to be able to own their identity, intellectual property, and physical assets.

Privacy is recognized as a human right, with data protection being a key condition of personal freedom, as it is a concept that is difficult to define. The protection of personal data is a driving force in the exercise of political, intellectual and religious freedoms, including personal activities. The right to privacy is also enshrined in the Universal Declaration of Human Rights (UDHR)), in Article 12 stating that no one shall be subjected to arbitrary interference with his right to privacy, family, home or correspondence, nor to prejudice his honour and reputation. Everyone has the right to be free from such harassment or attacks. In addition to constitutional protections, Indonesia is also a party to the International Covenant on Civil and Political Rights (ICCPR) ratified through Law Number 12 of 2005, which guides the government on how to protect citizens' personal data⁵⁶.

Regulations related to the protection of privacy and personal data are applied in accordance with Article 28 G of the 1945 Constitution of the Republic of Indonesia which regulates the right to protect oneself, family, honour, dignity and property under one's control. To be able to consider these regulations as regulations relating to privacy and personal data, the views of Warren and Brandeis in *The Right to Privacy* assert that the right to privacy is the right to enjoy life and the right to have one's feelings and thoughts respected⁵⁷. Protecting privacy is closely related to respecting personal data rights.

Indonesia already has a legal basis for protecting personal data, specifically Law No. 27 of 2022, but it has since become a truly flexible operational law. Therefore, Indonesia is interested in managing the protection of personal data. The Indonesian government's interest in

⁵⁶ Oktallia and Ariana, "Perlindungan terhadap Korban Penyalahgunaan Teknik Deepfake terhadap Data Pribadi".

⁵⁷ Sinta Dewi, *Aspek Perlindungan Data Pribadi Menurut Hukum Internasional, Regional dan Nasional*, (Bandung: Refika Aditama, 2015), pp. 12-15.

managing personal data protection is realised more specifically in the form of services provided to the Indonesian people.

Government serves by adhering to a well-thought-out terminology of efficiency and adaptability, which suggests that the use of data is relevant to operational issues during implementation and is intended to improve services and make management more effective⁵⁸. The Personal Data Protection Law stipulates legal requirements for controllers, data processors, and other parties involved in data processing activities to organize data processing activities to comply with the provisions of the Personal Data Protection Law. Critical data protection solutions based on technologies such as data loss prevention, storage with integrated data protection, firewalls, encryption, data mapping, and endpoint protection⁵⁹.

The Personal Data Protection Law requires that subsequent government regulations will be used to fully implement the personal data protection envisioned by the Personal Data Protection Law, particularly in relation to the protection of personal data at this time. Protecting personal data is important because the pace of technological development has enabled people to connect to the worldwide web and personal information is instantly available anywhere in the world. Connecting a system to the internet alone can put personal data at risk⁶⁰. Therefore, countries must have proper arrangements in place to protect personal data in this day and age.

During implementation, the application of design-based and default data protection principles is also required, when in fact it duplicates the existing design-based privacy principles. By protecting data by design, this means that companies, from the early stages of data processing design to the moment of processing, should implement

⁵⁸ Liesbet van Zoonen, "Data Governance and Citizen Participation in The Digital Welfare State", *Data & Policy* 2, no.10 (2020): 1-17, <https://doi.org/10.1017/dap.2020.10>

⁵⁹ Dewi Sulistianingsih, et.al, "Tata Kelola Perlindungan Data Pribadi di Era Metaverse (Telaah Yuridis Undang-Undang Perlindungan Data Pribadi)", *Jurnal Masalah-Masalah Hukum* 52, no. 1 (2023): 97-106, <https://doi.org/10.14710/mmh.52.1.2023.97-106>

⁶⁰ Graham Pearce and Nicholas Platten, "Achieving Personal Data Protection in The European Union", *Journal of Common Market Studies* 36, no. 4 (2002): 529-547, <https://doi.org/10.1111/1468-5965.00138>

appropriate technical and organizational measures to be able to integrate the necessary safeguards into data processing in order to meet regulatory requirements and protect the rights of the persons concerned.

Data protection by default means that companies should ensure that users' personal data is treated with the highest level of privacy protection, so that by default personal data can only be accessed for specific purposes and personal data cannot be consulted or known by anyone⁶¹. Therefore, an important point that must also be considered is the regulation related to data subject rights.

Conclusion

The lack of legal clarity regarding the liability of Artificial Intelligence is a major concern. Both criminal and civil liability for Artificial Intelligence is based on the principle of vicarious liability. This means that in the event of an offence committed by Artificial Intelligence, it is charged to the manager or organizer, in accordance with Article 47 of Law No. 27 of 2022. The absence of regulations governing the responsibility of Artificial Intelligence and its identification as a legal subject from a legal perspective can be a factor to consider for the development of progressive law in the future, this can be done with technological advances, especially the use of Artificial Intelligence can make everything possible. Law No. 27 of 2022 requires a Government Regulation in implementing personal data protection. In addition, there must also be clear regulations regarding the rights of data subjects.

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⁶¹ Rahman, "Kerangka Hukum Perlindungan Data Pribadi dalam Penerapan Sistem Pemerintahan Berbasis Elektronik di Indonesia".

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