Legal Reform of Restrictions on the Use of Artificial Intelligence (AI) in Order to Maintain Public Law in Indonesia

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Abstract. The emergence of artificial intelligence has permeated almost all aspects of human life. However, Indonesia does not yet have specific regulations governing the use of AI technology. In 2020, the Indonesian government launched the Indonesian National Strategy for Artificial Intelligence and is not a binding source of law and is not a regulatory and compelling law. This research explores how legal certainty influences regulations governing the use of AI for abuse prevention and how legal reforms impact these regulations. This research uses a normative juridical research method. The result of this research is that the regulation related to artificial intelligence is still an expansion of the meaning of "Electronic Agent" as contained in the ITE Law. Along with the increasingly widespread use of artificial intelligence in various contexts, it is very important to update the relevant laws and regulations.

Keywords: Artificial Intelligence, ITE Law, Legal Reform.

1   Introduction

Advances in *artificial intelligence (AI)* technology have reached almost every sector of human life. Various artificial *intelligence* (AI*)* programs have emerged that have the potential to experience convenience in human work, ranging from translator applications, virtual assistants, to applications that produce works of art. But there's also a chance that using artificial intelligence (AI) could violate a number of laws pertaining to personal information, privacy, and intellectual property. As artificial intelligence (AI) programs emerge, we see great potential to improve efficiency in various fields, such as translator apps that make cross-language communication easier, virtual assistants that help with daily tasks, and even apps that can produce works of art with amazing levels of creativity. However, behind this great potential, there are risks that need to be taken seriously.

The deployment of artificial intelligence (AI) also entails risks related to privacy, personal data security, and intellectual property rights. With regard to privacy, for instance, AI algorithms are capable of gathering and analyzing voluminous user data, which may result in privacy violations if not adequately regulated. In addition, the use of AI in relation to intellectual property rights begs the question of whose rights are linked with the works generated by the AI system. The concept of artificial intelligence (AI) is one devoted to developing machines that

are able to function with intelligence and to have foresight, based on their environment, in order to function appropriately.[1]

Indonesia has not yet created any laws that address particular facets of artificial intelligence (AI) technology. The Indonesian government released the Indonesian National Strategy on Artificial Intelligence in 2020. This strategy covers data infrastructure and AI technology development, as well as ethical and policy concerns regarding AI use and human resource development in the field. However, the Stranas on *artificial* intelligence (AI*)* technology is not a binding source of law and is not a regulating and compelling legislation, but only a national level policy guideline.

A number of pertinent regulations have been released, including the Personal Data Protection Law, which establishes guidelines for the use of AI in relation to the protection of personal data, and the Regulation of the Minister of Communication and Information Technology, which governs licensing for the use of AI. In the utilitarian school that Jeremi Bentham is at the forefront of, as referred to by Sudikno Merto Kusumo, that law aims to ensure the*greatest* happiness for humans in the greatest number.[2] However, there is still a need to develop more detailed and binding regulations to address more specific aspects related to *artificial intelligence (*AI*)* technology. The Minister of Communication and Information Technology Regulation No. 3 of 2021, which governs licensing for companies using artificial intelligence (AI) technology, is one of numerous pertinent regulations pertaining to the usage of AI technology.

Furthermore, under the heading of "electronic agent," laws outlined in Law No. 11/2008 on Electronic Information and Transactions (UU ITE) address specific facets of artificial intelligence (AI) technology. Additionally, guidelines for the use of AI technology in relation to the protection of personal data are outlined in the Personal Data Protection Law. The Indonesian Ministry of Communication and Information Technology has also issued a set of ethical guidelines pertaining to the utilization of artificial intelligence (AI) technology by commercial entities. These guidelines were set forth in Minister of Communication and Information Circular Letter Number 9 of 2023 on Artificial Intelligence Ethics. However, it is important to note that Indonesia's National Artificial Intelligence Strategy does not possess the binding legal force of a statute. Instead, it serves as a national-level policy guideline. This implies that the strategy's implementation is not legally binding for the entities involved. This indicates a necessity for the formulation of further, more concrete, and binding regulations pertaining to the utilization and advancement of artificial intelligence technologies within Indonesia. Such regulations could provide a framework for legal certainty and a robust foundation for the promotion of innovation, investment, and the integration of artificial intelligence (AI) in diverse sectors.

A clear and equitable regulatory framework for the application of artificial intelligence (AI) must be established by legislators, technological developers, and society at large in order to mitigate these hazards. Enforcing the law with determination, empathy, dedication, commitment to the plight of the nation and with the courage to look beyond the norm.[3] Artificial intelligence (AI) can only be used if it is properly regulated, taking into account ethical, transparent, and private-protecting standards. As stated by Gustav Radbruch who argued that the law in its purpose needs to be oriented towards three things, namely legal certainty, justice, and usefulness *(doelmatigheid)*.[3] In addition, efforts in developing safer and more reliable artificial intelligence technology must also continue to be encouraged.

The advancement of artificial intelligence (AI) technology has marked a turning point in technological history by opening up new avenues for application and radically altering how humans engage with the digital environment.[4] With the advent of artificial intelligence (AI)

technology, a new era with amazing achievements and boundless possibilities for creativity has begun. Artificial intelligence has transcended the boundaries of conventional technology and changed the way we work, interact and access information. These challenges are not only technical in nature, but include dimensions that reach deep into ethics, privacy, security and social impact. This research seeks to explore and carefully analyze the complexity of legal challenges that arise with the development of artificial intelligence technology.[5]

Artificial intelligence aims to understand that artificial intelligence technology not only creates tools and systems capable of performing tasks that were once performed by humans, but also enters realms that carry profound legal implications. With its ability to massively process and analyze data, the legal questions that arise include individual privacy, system security, legal liability, and more.[6] Numerous facets of human life have undergone radical transformation as a result of the advancement of artificial intelligence (AI) technology. The issues with privacy that come up when artificial intelligence (AI) becomes more and more integrated into data management, analysis, and gathering are one topic that is extensively debated. The purpose of this study is to investigate the legal issues surrounding privacy in the age of artificial intelligence (AI).

The intensive data collection process by *artificial intelligence (AI)* systems creates a dilemma between technological advancement and individual privacy rights. The continuity and depth of data collection by *artificial* intelligence (AI*)* systems can potentially violate privacy rights, and in response, legal challenges arise in defining clear boundaries. Ethical questions arise in relation to how personal data is processed by *artificial* intelligence (AI*)* systems. Legal challenges relate to the right of individuals to know and understand how their personal data is treated by technology, as well as the implications of decisions taken by artificial intelligence (AI) algorithms. Increasing cases of data security breaches and the risk of cyber-attacks add to the complexity of privacy challenges. This research discusses the legal framework needed to protect personal data from internal and external threats, as well as efforts to minimize their impact on privacy. Existing privacy regulations may need to be adjusted to accommodate the dynamic development of *artificial intelligence (AI)*. Legal challenges arise in finding a balance between strict privacy protection and the freedom to use data to advance technological innovation.

Artificial Intelligence (AI) technology is entering a new dimension in its role and impact in decision-making, raising profound ethical questions around its implications and consequences.[7] This research explores the complexity of ethical challenges associated with *AI* decisions, identifying the issues that arise and exploring possible legal remedies to address these dilemmas. Artificial intelligence (AI) systems have the ability to make complex decisions, sometimes exceeding human capabilities. In this context, *AI* decisions can have significant impacts on individuals, society and the environment, measuring the scale of responsibility and ethical considerations. Artificial intelligence (AI) algorithms, which form the basis of decision-making, sometimes harbor certain biases or predispositions. This creates ethical challenges as decisions made by *artificial* intelligence (AI*)* may create or perpetuate inequality, discrimination or injustice.[8]

Artificial *intelligence (AI)* decisions are often complex and difficult to understand by users or even by policy makers. Understanding and taking responsibility for these decisions becomes an ethical issue that requires clarification and a clear legal framework. In making decisions that affect everyday life, artificial intelligence (AI) raises questions about the social and humanitarian impact of its decisions. The ethical challenges here involve considerations about human values, fairness and the long-term impact on society. The importance of developing

ethical guidelines and decision standards for the development and use of *artificial* intelligence (AI*)* is important.

Innovation in the law needs to continue as technology advances, so efforts are needed to create responsive and adaptive regulations, enabling them to accommodate new challenges that arise over time. Regulation to address liability issues involves establishing a clear legal framework, accommodating *artificial intelligence (AI)* decisions and setting liability limits for relevant stakeholders. The involvement of the public, academia and industry in the regulatory process is key to creating a holistic legal framework.

Based on this, the formulation of the problem to be studied can be stated, namely 1. How is legal certainty related to the regulation of restrictions on the use of artificial intelligence (AI) for the prevention of abuse? 2. How is legal reform related to the regulation of restrictions on the use of artificial intelligence (AI*)* for the prevention of abuse?

2   Method

This study employs normative juridical research techniques, combining an analytical and statutory approach.[10] With primary legal material, namely Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Electronic Information and Transactions, which is then analyzed through grammatical interpretation and teleological interpretation.[9]

3   Discussion

3.1   Legal Certainty Related to the Regulation of Restrictions on the Use of Artificial Intelligence for the Prevention of Abuse

In accordance with the theoretical framework of Hans Kelsen, the discipline of law is defined as an integrated system of norms. A norm can be defined as a statement which places an emphasis on the 'should' or 'das sollen' aspect, with the implication that a certain course of action should be followed. Norms are the result of human action and deliberation. Laws that contain general rules function to provide guidance to individuals on appropriate conduct within society, encompassing both interpersonal interactions and relations between the individual and the larger collective. These rules serve to restrict the actions of individuals within society. The existence of these rules and their implementation give rise to legal certainty.[10]

Furthermore, the achievement of the ideals of discrimination-free equality before the law depends on legal clarity. The concept of "certainty" is strongly linked to the truth principle, suggesting that the term can be rigorously and legally determined in the context of legal certainty. Legal certainty guarantees that a person can act in a way that complies with the rules of the relevant legislation, and vice versa. When there is a lack of legal clarity, people are left without a norm to govern their actions. Gustav Radbruch also said that one of the goals of the law itself should be to provide legal certainty in order to achieve this goal. Radbruch delineated four fundamental aspects of legal certainty, which he defined as follows: 1. Legislation is an example of positive law, which is a goodphenomena. This definition runs counter to the conventional understanding of law as a bad thing. 2. Since the law is founded on a fact, it originates from actuality. Legal facts must be stated precisely in order to avoid confusion and

make execution easier. It is critical that the facts stated in or included in the law be stated clearly because positive laws are unchangeable. Legal certainty, in Gustav Radbruch's definition, is the certainty of the law. He posited that this certainty arises from legislation.[11]

The simulation of human intelligence in computers that are built to function similarly to humans is known as artificial intelligence, or AI. McLeod and Schell explain that artificial intelligence (AI) is the use of machines such as computers that exhibit intelligent human-like behavior. In other words, artificial intelligence (AI) is the ability of a computer system to carry out tasks that often call for human assistance. Artificial intelligence (AI) is able to autonomously self-correct by gathering and utilizing data to expand its knowledge.[12] Artificial intelligence (AI) technology, as a subset of computer programs, has similar elements to regular computer program technology. What distinguishes artificial intelligence (AI) is the form of program execution instructions, which consist of more complex algorithms and programming languages. Artificial intelligence can make decisions according to the judgment of its program, resembling the ability of human reason, while ordinary computer programs have been directed to certain actions through their predetermined algorithms and programming languages.[13]

There have been numerous noteworthy steps in the development of rules pertaining to limitations on the use of artificial intelligence (AI) technology in Indonesia to prevent misuse, indicating efforts to ensure legal clarity in the use of such technology. The Indonesian government has begun to recognize the importance of regulating artificial intelligence (AI) through various initiatives, such as the preparation of a national action plan for the development of artificial intelligence (AI). The Indonesia National Strategy for Artificial Intelligence 2020–2045 was released by the Agency for the Assessment and Application of Technology (BPPT) in order to successfully apply artificial intelligence in Indonesia. Nevertheless, the strategy has not yet provided specifics about how it would be implemented and is still only at the basic policy debate stage. This is a concern considering that many companies in Indonesia have developed and used AI technology in their operations. Especially, strategic sectors such as banking, e-commerce, and healthcare have involved artificial intelligence (AI) technology in business processes.

In Indonesia, there is no specific legal regulation related to artificial intelligence (AI), which is why the ITE Law has been expanded to regulate legal regulations related to AI. Article 1 point 8 of the Electronic Information and Transaction Law (ITE Law) which reads: "*Agen Elektronik adalah perangkat dari suatu Sistem Elektronik yang dibuat untuk melakukan sessuatu tindakan terhadap suatu Informasi Elektronik tertentu secara otomatis yang diselenggarakan oleh orang*." In other words, an electronic agent is a component of an electronic system designed to carry out a task on specific electronic data that has been manually arranged.

The idea of artificial intelligence (AI) as a "Electronic Agent" is then developed using the term "automatic" from the definition of "Electronic Agent." In this method, artificial intelligence (AI) is implicitly governed by the same rules that govern "Electronic Agents." The use of artificial intelligence (AI) by individual entities is recognized under the provisions of the ITE Law and Government Regulation No. 71/2019 on the Implementation of Electronic Systems and Transactions as a form of implementing regulations, provided that the context does not violate others' privacy, does not violate public order by not spreading false information or news, and does not harm any race, tribe, religion, or group that can incite hostility and hatred, such as case information that occurs in other countries. Legally speaking, the person in charge of the electronic system that arranges artificial intelligence (AI) services will be responsible for implementing the usage of AI.[14]

However, since there is little law addressing the development of AI technology—which is growing more and more diverse—the expanded definition of "electronic agent" as specified in the ITE Law with regard to the application of AI is meaningless. The Big Indonesian Dictionary defines a "agent" as an individual or business that serves as a middleman between two or more parties in order to facilitate sales.[15] As the times evolve, artificial intelligence (AI) technology not only provides sales efforts in the business process as referred to in the Big Indonesian Dictionary (KBBI), artificial intelligence (AI) technology is increasingly diverse and extends beyond the context of selling an object. This diversity of models and forms has no legal certainty.

The legal certainty idea promotes making the relevant laws and regulations more clear. It is crucial to establish clear guidelines outlining each party's responsibilities and obligations while using artificial intelligence (AI) technology to prevent misuse that causes harm to other parties.[18] In this instance, legal clarity will aid in avoiding uncertainty that would allow those who abuse artificial intelligence (AI) technology to take advantage of it. A fair and uniform application of the law is required by the principle of legal certainty. Enforcing cyber law consistently and keeping up with scientific and technological advancements is necessary to effectively address illegal activities in the cyberspace. This includes enforcing the same rules against all lawbreakers indiscriminately, thus providing certainty for all parties involved.

Predictability of the legal ramifications of certain actions is also required by the principle of legal certainty. When it comes to the application of artificial intelligence (AI) technology, those who abuse it and do harm to others need to be aware of the penalties they may face legally. Certainty regarding the legal sanctions that will be received can be a deterrent factor for potential lawbreakers. By prioritizing legal certainty in dealing with the increasingly diverse misuse of artificial intelligence (AI) technology, the legal system can build public trust. When the rule of law is implemented consistently and transparently, the public will feel confident that justice will be served and their rights will be protected. This will help increase trust in the legal system as a whole.

However, there are still several obstacles standing in the way of Indonesia's ability to deploy artificial intelligence (AI) with legal certainty. The lack of data security in Indonesia, along with the lack of openness and transparency around the creation and use of AI technology, is a serious problem. This can impede the ability to regulate AI effectively, particularly given the potential for its misuse and the necessity for societal protection. While there has been progress in the development of regulations related to AI in Indonesia, further efforts are necessary to ensure that the regulations provide sufficient legal certainty to prevent the misuse of AI technology and to protect the interests of society as a whole.

3.2 Legal Reform Related to the Regulation of Restrictions on the Use of Artificial Intelligence for the Prevention of Abuse

The concept of the role of law as a tool to reform the structure of society was first introduced by Roscoe Pound in his work entitled "An Introduction to the Philosophy Of Law" in 1954, in the context of the Pragmatic Legal Realism school, a branch of legal positivism.[16] This thinking emphasizes the importance of mechanisms in law, which is reflected in the use of the term tool. In Indonesia, Prof. Dr. Mochtar Kusumaatmadja, S.H., LL.M., Professor of the Faculty of Law, Padjajaran University, developed this concept with adjustments to suit the local context. One of these adjustments was to change the term tool into a means, so that the initial concept of law as a tool for reform in society was changed to law as a means of reform in society. According to Mochtar, the concept of law as a "means" of reform in Indonesia has a broader

scope than in the United States because of the more dominant role of legislation in the process of legal reform in Indonesia. In addition, Mochtar rejects the application of mechanisms that have the potential to produce the same results as the legism approach which is not suitable for the Indonesian context. Therefore, Mochtar tends to use the term tool in the development of this concept.[17]

The law used as a means of reform can be in the form of legislation, jurisprudence, doctrine of treaties, customs, or unwritten law.[18] Indonesia is the most prominent legislation, while jurisprudence does not play a role, because Indonesia is a country that adheres to civil law, not common law. In order for the implementation of legislation aimed at reform to run properly, the legislation should be formed in accordance with the existing law in society. Consequently, the ideals that permeate society are reflected in the law. Apart from being a system of regulations that need to be followed, laws are also supposed to be a means of revitalizing society. This is comprehensible as the community is required to act in accordance with the laws that have been established.

Legal reform is defined as a process of examining various formulations of legal provisions and legislation in force, and implementing a number of changes in order to achieve efficiency, justice and also the opportunity to obtain justice according to the applicable law.[19] The law used as a means of reform can be in the form of legislation, jurisprudence, doctrine, treaties, customs, or unwritten law. [20]

The advancement of information technology today has created a borderless world and greatly influenced social change. This makes information technology development a two-edged sword that, while it can be used to commit crimes, it can also be a useful tool for enhancing social welfare and the advancement of human civilization."[21] Many international entities commonly refer to information and communication technologies by this phrase. Information and communication technology plays a significant influence in people's lives and has altered social behavior and worldwide human civilization.[22] While the advancement of information technology facilitates the performance of everyday tasks for humans, it also gives rise to a number of issues that need to be addressed and resolved. Nevertheless, information technology cannot be avoided.

Artificial intelligence is the imitation of human intelligence in a system that has been designed to emulate human thought processes and behavior. The phrase can also refer to technology or devices that possess traits found in the human mind, where the process involves learning how to obtain knowledge and apply rules to it, reasoning to derive approximations of conclusions from the rules, and self-correction. The purpose of artificial intelligence is to imitate human intelligence, which can then be used to program a computer to carry out tasks with a high degree of consistency and precision.[1]

The theory of legal reform created by Prof. Dr. Mochtar Kusumaatmadja, S.H., LL.M., can be related to legal reform in the context of Indonesia's limitations on the use of artificial intelligence (AI). This idea holds that while upholding core legal norms and principles, legal reform must take evolving social, economic, and technical advancements into account. In the context of AI use, legal reform needs to anticipate new challenges and risks that arise along with technological advances, such as privacy issues, data security, and algorithm discrimination. Thus, the updated artificial intelligence (AI) regulation must be able to answer the demands of modern society without compromising the principles of justice and legal protection. In addition, legal reform must also be carried out gradually and consistently, by involving various stakeholders and paying attention to its impact on society as a whole.

Law, apart from being a collection of norms that are enforced to be obeyed, also has a very vital role in developing a society. This can be studied from the perspective that law is not

only the foundation for social order, but also an instrument that aims to shape and direct the behavior of society in accordance with predetermined provisions. In this context, legal reform plays an important role as a process that reviews and evaluates various existing legal provisions, with the aim of making the necessary changes in order to create efficiency, justice, and provide opportunities for individuals or community groups to obtain treatment in accordance with applicable legal principles. Therefore, legal reform does not only aim to adapt legal provisions to the changing times and demands of society, but also to ensure that the law remains relevant and effective in responding to evolving social dynamics.[17]

Legal reform theory acknowledges the necessity of keeping up with technological advancements. Regarding the application of artificial intelligence (AI) technology, the field is still developing quickly, which presents new difficulties for law enforcement and discourages the abuse of AI technology as a tort. The government can offer legal protection that stops the exploitation of artificial intelligence (AI) technology that can cause harm in the context of both criminal and civil law by changing the laws pertaining to its use.[23]

Using legal reform theory, the legal system can be updated to accommodate technological advances and respond to the misuse of artificial intelligence (AI) technology that is emerging in every aspect of the digital world. The application of legal reform theory enables the identification of shortcomings or gaps in the existing legal framework. In order to better address this misuse of artificial intelligence (AI) technology, the legal framework can be modified. The legal reform theory promotes creativity in law enforcement to address emerging issues. New techniques like data analysis and artificial intelligence can be utilized to detect and prevent harmful activities more effectively when used in conjunction with artificial intelligence (AI) technology as a kind of international cyber development. In terms of determining the reform of the applicable law to cover all uses of artificial intelligence (AI) technology, there are several principles that are commonly used, including:[24]

1. Subjective territoriality is a principle that emphasizes the applicability of the law is based on the location of the crime. This means that the resolution of the offense occurs in another country, rather than in the country in which the crime was committed. The principle in question posits that the applicability of the law is contingent upon the location of the crime. Consequently, the resolution of the offense is deemed to occur in another country.

2. Objective territoriality posits that the applicability of the law is based on the location of the crime, with the resolution of the offense occurring in another country. This principle posits that the applicable law is the law resulting from an act that has very adverse consequences for the state concerned.

3. Nationality: The state is empowered to determine the applicable law based on the nationality of the offender, considering their citizenship status.

4. The concept of passive nationality prioritizes jurisdiction according to the victim's nationality.

5. The protective principle states that the state's intention to safeguard its interests against crimes committed outside its borders—crimes that are often punished if the victim is the state or government-determines whether the law is applicable. This principle establishes that each state is entitled to apprehend and punish those responsible for piracy. As international law has developed, this principle has been expanded to include crimes against humanity and continues to be developed for very serious crimes.

The application of legal reform theory enables the optimal use of this technology in law enforcement efforts. Legal reform theory can also raise legal awareness and regulatory compliance by modernizing the legal environment to restrict the use of artificial intelligence (AI) technology. With clear and relevant regulations in place, businesses and individuals will be more likely to comply with the law and avoid committing criminal acts.

4   Conclusion

Conclusions that can be made in light of the above debate are as follows:

a. The artificial intelligence (AI) legislation continues to broaden the definition of "Electronic Agent" in the context of the ITE Law. Since artificial intelligence (AI) is being used for more and more purposes outside of corporate processes, legislation is required to give the public legal clarity and enable them to take advantage of AI's expanding range of applications.

b. In order to safeguard the public, laws governing the use of artificial intelligence (AI) technology must be updated to reflect evolving social, economic, and technological trends while upholding core legal norms and principles. Artificial intelligence (AI) regulations need to be updated to meet the needs of contemporary society while upholding the values of justice and legal protection.

References

[1]   A. Rizqia, M. Hubeis, and P. Astuty, "Impact of Indonesian Capital Market Development on Economic Growth Through Labor Absorption and Per Capita Income (Time Series Study 1990 – 2020)," 2022. doi: 10.4108/eai.30-10-2021.2315673.

[2]   I. Mardiputra, R. Sara, and E. Israhadi, "Legal Protection for Outsourced Workers Based on Law Number 13 of 2003 Concerning Manpower Post-Revision of Law Number 11 of 2020 Concerning Job Creation," 2023. doi: 10.4108/eai.6-5-2023.2333547.

[3]   B. Selfira and J. Neltje, "Analysis of the Legal Protection of Online Transportation Services Users for Unenjoyable Actions by Online Ojek Drivers Through Social Media According to Law Number 8 of 1999 Concerning Consumer Protection," 2022. doi: 10.2991/assehr.k.220404.029.

[4]   H. Artono, "Legal Aspects on Financial Technology (Fintech) Peer to Peer (P2P) Lending that Declared Illegal by Otoritas Jasa Keuangan (OJK)," 2021. doi: 10.4108/eai.6-3-2021.2305968.

[5]   A. Hamid, M. R. Aldila, and A. M. Intan, "The urgency of labor law for informal sector workers in the welfare state concept: An evidence in Indonesia," *Int. J. Res. Bus. Soc. Sci. (2147- 4478)*, vol. 11, no. 6, pp. 528–541, Sep. 2022, doi: 10.20525/ijrbs.v11i6.2036.

[6]   L. Kushonggo and F. Santiago, "Indonesian Legal Political Policy towards Determining Electricity Tariff in the Geothermal Industry," 2021. doi: 10.4108/eai.6-3-2021.2305977.

[7]   Q. D. Kusumawardani, "Hukum Progresif Dan Perkembangan Teknologi Kecerdasan Buatan," *J. Vej*, vol. 5, no. 1, p. 169, 2019.

[8]   N. R. Izzati, "Ketidakseimbangan Kewajiban Para Pihak dalam Regulasi Ojek Online: Distorsi Logika Hubungan Kemitraan Ekonomi Gig," *Undang J. Huk.*, vol. 5, no. 2, pp. 325–356, Dec. 2022, doi: 10.22437/ujh.5.2.325-356.

[9]   I. Irabiah, B. Suswanto, and M. A. A. Mafing, "PENERAPAN RESTORATIVE JUSTICE PADA TINGKAT PENUNTUTAN (STUDI KASUS DI KEJAKSAAN NEGERI KOTAMOBAGU)," *Perspektif*, vol. 27, no. 2, pp. 131–138, May 2022, doi: 10.30742/perspektif.v27i2.828.

[10]   S. Senen, R. Bratamanggala, and P. Astuty, "The Influence of the HDI Component and the

Development of MSMEs on Economic Growth and Its Implications on Poverty and Unemployment in the DIY Province," 2022. doi: 10.4108/eai.16-4-2022.2319702.

[11] N. Ernasari, A. Budianto, and R. Sara, "Realizing An Effective Legal System in Handling Mayantara Crime (Cybercrime) in The Society 5.0 Era," 2023. doi: 10.4108/eai.6-5-2023.2333461.

[12] E. Prabowo and M. Barthos, "Health Law Review About Not Being Obliged to Show Negative Results of RT-PCR / PCR OR Rapid Antigen Tests on The Provisions of Domestic Travelers (PPDN) Who Have Been Vaccinated Three Times / Boosters in Indonesia," 2022. doi: 10.4108/eai.16-4-2022.2319703.

[13] S. Suparno and B. A. Hernowo, "Legal Analysis of the Use of Trademarks that have Similarities at Their Core or Entirely (A Study of Decision Number 55/Pdt.Sus-HKI/Merek/2022/PN Niaga Jkt.Pst)," 2023. doi: 10.4108/eai.28-10-2023.2341834.

[14] S. Sudarto and M. Barthos, "Health Protocol Law Enforcement," 2022. doi: 10.4108/eai.30-10-2021.2315619.

[15] O. Taopik, "Application of Pancasila Values in Human Resource Management with the Development of Technology and Information," 2023. doi: 10.4108/eai.28-10-2023.2341821.

[16] G. Hartatiyanto, A. Redi, and H. Bakir, "Public Health Services by the Community Health Center Reviewed According to Law Number 25 of 2009 Concerning Public Services," 2023. doi: 10.4108/eai.12-11-2022.2327272.

[17] P. L. Moore and K. L. Lawrence, "The Essential Role of Human Service Nonprofits in Restorative Justice Policy Implementation," *Nonprofit Policy Forum*, Sep. 2023, doi: 10.1515/npf-2022-0040.

[18] G. Hartatiyanto, A. Redi, and E. Israhadi, "Action Violation of Norm Conducted By The Hospital For Medical Action Refusal To Patients," 2023. doi: 10.4108/eai.6-5-2023.2333397.

[19] L. Colgrave, "Ride Hailing in Indonesia and Australia Gig Economies; The Case of Go-Jek, Grab, and Uber - Center for Digital Society'," *enter for Digital Society, December 2019*. p. 9, 2019. [Online]. Available: https://digitalsociety.id/2021/02/03/59-cfds-case-study-ride-hailing-in-indonesia-and-australia-gig-economies-the-case-of-go-jek-grab-and-uber/

[20] M. Rachmawati, B. Dewantoro, G. Susilo, A. Pranaditya, and S. Sukardi, "Analysis of the Effect of the Quality of Human Resources and Financial Management Information Systems on Village Financial Performance during the Covid 19 Pandemic," 2022. doi: 10.4108/eai.30-10-2021.2315789.

[21] A. I. El Rahman, "Eksekusi Hak Tanggungan Dalam Prinsip Ekonomi Syari'ah," *LAN TABUR J. Ekon. Syariah*, vol. 1, no. 1, pp. 44–59, Nov. 2019, doi: 10.53515/lantabur.2019.1.1.44-59.

[22] H. Hendri, A. Budianto, and R. Sara, "Police Efforts in Overcoming Anarchic Actions Performed by Motorcycle Gangs," 2023. doi: 10.4108/eai.12-11-2022.2327287.

[23] H. Rahayu, E. Lestari, T. Retnaningsih, and A. Nurhayati, "Analysis of the Cointegration and Causality Relationship to Soybean Imports in Indonesia," 2021. doi: 10.4108/eai.6-3-2021.2305933.

[24] M. A. S. and Suprapedi, *Introduction to IPR Intellectual Property Basic Concepts for Innovation Growth*. jakarta: index, 2008.