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The Legality of Intellectual Property by Artificial Intelligence in Indonesia

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Abstract.
This study aims to examine the legitimacy of intellectual property generated by artificial intelligence (AI) in Indonesia. With the rapid development of AI, intellectual property generated by AI has become a complex issue, attracting the attention of legal experts and stakeholders. Although the legal framework in Indonesia does not specifically address intellectual property generated by AI, certain aspects of existing law may apply in this context. This study uses normative or doctrinal research methods to analyze the legal framework in Indonesia regarding intellectual property, including copyright law, patent law, industrial design law, and trade secret protection. In addition, this research examines the views of legal experts and stakeholders in Indonesia regarding the legitimacy of intellectual property generated by AI. The results of this research are expected to provide a clearer understanding of the legality of intellectual property law produced by AI in Indonesia. Research results will contribute to discussions around AI-related laws and regulations and may serve as the basis for future regulatory changes or adjustments. This study has significant implications for stakeholders, including AI creators, users, and developers in Indonesia. By understanding the applicable legal framework, appropriate legal protection frameworks can be created for AI-generated intellectual property, promoting continuous innovation and responsible utilization of AI.

Keywords: artificial intelligence, intellectual property, legality

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1. INTRODUCTION

Artificial Intelligence (AI) is the science and engineering of making intelligent machines primarily through computer programs. AI consists of processes by which human intelligence is simulated through machine processes and is concerned with the design, development and implementation of computer systems. The development of artificial intelligence is able to provide very innovative breakthroughs following current conditions. Google search is the most widely used artificial intelligence today including virtual assistants that can provide two-way communication as well as deep face on smart phones and social media Facebook which is used to identify facial images uploaded on social media, Artificial intelligence in cars without a wheel. Artificial intelligence is

also used in various other life sectors including business, economy and health which are able to answer current needs[1].

Artificial Intelligence is a manifestation that human life is in the era of the industrial revolution 4.0. The industrial revolution 4.0 began with the idea of the German government to create a roadmap for implementing the digital economy in 2011. “Cyber Physical System” has become a term known as the industrial revolution 4.0. The concept of its application is centered on automation. The application of various types of technology on various fronts is a sign of the start of the Industrial Revolution 4.0. This application can be seen in the use of various kinds of Artificial Intelligence (AI) or often referred to as artificial intelligence, Internet of Things (IoT) and various kinds of software (software), computerization, robots and other automation[2].

The industrial revolution has had a positive impact through changes in the way of work, way of life, and way of socializing in society for the better. This is evident from the contribution made by artificial intelligence to the economies of developed countries, with the rapid development of artificial intelligence which has driven productivity levels to increase significantly. Another impact felt on the development of human civilization with the presence of technological advances is the ease of communicating and accessing information[3]. This is due to the development of information technology which has given birth to various services such as e-commerce, e-government, and various services based in cyberspace. The presence of various internet-based services makes it easy for anyone to access them. But on the other hand, this technological advancement has also raised various kinds of concerns that one day human work will be taken over mostly or even entirely by machines. It can be concluded that some experts in the field of business argue that the industrial revolution that is currently being experienced by the world’s population can replace many human work roles. This is inseparable from the emergence of various highly sophisticated technologies such as artificial intelligence and the entry of the disruptive era.

Artificial Intelligence technology that was created to be able to carry out activities in such a way as humans have become a concern for people’s lives as Artificial Intelligence can carry out legal actions or legal actions that are the same as those that can be carried out by humans[4]. One of the things that can be done by Artificial Intelligence is to produce an intellectual work such as copyrights, trademark rights, trade secrets, and so on. It is very possible for AI to produce increasingly complex and creative works. This raises questions about the legal legitimacy of these works and whether the existing legal framework is sufficient to accommodate intellectual property generated by AI in Indonesia.

Furthermore, it should be noted that legal certainty is an important aspect in this context. In the case of AI intellectual works, legal clarity regarding protection, ownership and responsibility is important for stakeholders, including AI creators, users and developers in Indonesia.

Protection of intellectual property rights is an important incentive for creators to innovate and protect their creations. However, with AI growing as a creator of works, it is necessary to consider whether existing regulations are adequate in protecting the intellectual property produced by AI in Indonesia. In addition, research on the legitimacy of AI intellectual work also needs to pay attention to developments and global views regarding this issue. Other countries are discussing and adopting specific regulations regarding AI intellectual property, so it is important to understand this global trend in the Indonesian context.

Against this background, research on the legitimacy of intellectual works produced by AI in Indonesia is relevant and important. This research aims to provide a deeper understanding of the existing legal framework, identify existing gaps or challenges, and provide recommendations regarding the regulation of legal protection for intellectual property created by AI in Indonesia.

2. METHODOLOGY/ MATERIALS

This research is doctrinal in nature by using a type of normative juridical research method[5][6]. This type of research is legal research that analyzes the relationship between a law as norms that become a reference in behaving and an inventory of positive law. The approach used in this research is a statutory approach because this research examines and examines the regulations governing intellectual property associated with artificial intelligence. Normative juridical law research is research that examines secondary data, namely data obtained indirectly, such as library materials as a source of research, so it is also known as theoretical/dogmatic legal research[7]. This research is normative juridical research that examines secondary data, so the data is obtained through library research techniques. The analytical method used in analyzing the data obtained uses a descriptive-qualitative analysis method[8] which analyzes data sourced from legal material in the form of regular and coherent sentences.

3. RESULTS AND DISCUSSIONS

Massive and progressive changes in the era of the 4.0 industrial revolution towards the 5.0 industrial revolution cannot be stopped anymore[9]. AI is increasingly innovative[10] with the ability to integrate humans, machines and the interrelated environment. The characteristics brought by the fifth industrial revolution are the unity of humans and machines in improving the performance of their activities through smart systems that cover every process. However, even though it has provided many positive changes for humans, the evolution of technology has also created new challenges such as creating legal uncertainty. This legal uncertainty can be seen, among other things, in the copyright law regime when artificial intelligence has shifted the paradigm of human relations with science, art and literature in creating his works autonomously. As for what is meant by artificial intelligence in general is a system that allows a computer to behave intelligently like a human[11].

Examples of intellectual property that has been generated by artificial intelligence (AI) include:

1. Artwork: AI can produce works of art such as paintings, drawings or digital[12] artwork using algorithms and machine learning capabilities. An example is a work of art in the form of a painting or illustration produced by AI such as GAN (Generative Adversarial Network).

2. Music: AI can create original musical compositions using algorithms and statistical modeling based on existing music data[13]. Some examples include songs generated by AI such as “Daddy’s Car” by Sony CSL and “I Am AI” by Taryn Southern.

3. Writing: AI can produce quality texts and articles using AI-based text generation techniques[14]. A well-known example is GPT-3 which can generate text with a variety of topics and writing styles.

4. Product Design: AI can generate innovative product designs by leveraging algorithms and machine learning[15]. For example, AI can generate new and unique furniture, fashion or vehicle designs.

5. Innovation and Invention: AI can be used to generate new[16] inventions or innovations in fields such as computer science, biomedical science or information technology[15]. AI can assist in complex data research and analysis to identify new patterns, trends or discoveries.

6. Imaging and Photography: AI can generate high-quality images and process imaging[17] with techniques such as image processing[18], photo restoration, or image stitching.

It should be noted that the legal status of the intellectual property of these works is still being debated in various jurisdictions, including Indonesia. The criteria and requirements used to determine the legal validity of intellectual property generated by AI are still under development and still require clearer and specific arrangements at the legal level.

Law should be able to keep up with the rapidly increasing development of AI, especially in the field of creative work. This is intended so that there is legal certainty so that justice can be realized. In the perspective of Copyright, AI's creations are works that are protected by Intellectual Property Rights. As previously mentioned, that AI is capable of creating a variety of works, then as stipulated in Law Number 28 of 2014 concerning Copyright (UUHC), Creation is any copyrighted work in the fields of science, art and literature that is produced on inspiration, ability, thought, imagination, dexterity, skill or expertise expressed in a tangible form. It should be understood again that based on the aforementioned arrangement, copyrighted works in real form do not have any requirements regarding originality[18].

AI can indeed produce intellectual work that is unique and personal and acts and thinks like humans by carrying out tasks with clear goals. In fact, many tasks that were previously carried out by humans have begun to shift to being carried out by AI. However, there are significant differences that must be considered between humans and AI. If you look at the definition of creation as previously explained, what is the result of AI's creation, whether AI creates it through a process of imagination or inspiration like humans as creators. It should also be noted that AI is not a person and has no special and personal characteristics that can be associated with the creation. AI itself can be categorized as a computer program as stipulated in Article 1 number 9 UUHC, namely a set of instructions expressed in the form of language, code, scheme, or in any form intended for the computer to work to perform certain functions or to achieve certain results.

The category of AI level as stated by Mikhail Batin and Alexey Turchin quoted by Eka Nanda Ravizki and Lintang Yudhantaka[19] that the level of AI is Narrow AI, Artificial General Intelligence (AGI), and Superintelligence. Based on the categorization of AI levels, it can be seen that the most widely used AI today is considered to be Narrow AI. Narrow AI (Weak AI) is a level of computer programs that achieve above-human performance in specific and narrow tasks. Meanwhile, to say that it really resembles

humans is AI at the level of Artificial General Intelligence (AGI). However, considering the current rapid development of technology, even though it has not yet reached the AGI level, humans need to be prepared from an early age to accept this technology. So that the negative impact that might occur from the AGI level can be anticipated.

AI has developed from what was previously considered only science fiction to become a scientific fact because it has capabilities that previously could only be imagined, such as in films or human-made stories[20]. AI now has abilities such as moving and producing, predicting and choosing, being able to learn, understanding and interpreting, being able to analyze and determine the best move, being able to perceive and feel emotions[16].

Thus, AI actually has more in common with the human creator. This will increase the difficulty of distinguishing the processed product of a human-made technology from the processed product of AI, because AI has been shown to have capacities that are sometimes mentally and physically similar to functions that exist in humans, and most people believe that AI has that capability[1]. The increasing similarity between humans and AI indirectly proves that at this time an acknowledgment is needed stating that AI is a legal subject.

It must be admitted that it is difficult to categorize or equate AI like organisms like humans. However, historically, this kind of debate has been carried out in viewing corporations as legal subjects. The debate that arose at that time was that the corporation was not an organism but there was a need to recognize the corporation as a legal subject[4]. This gave birth to the theory of legal entities and the theory of organs, the essence of which is that law can recognize legal subjects other than natural human beings (naturalijk person)[21].

This legal entity theory is relevant to the theory related to Philosophical Personality. Many experts argue that the main purpose of law is to increase welfare and protect human interests. Humans are the only beneficiaries of the law, but this opinion may be inappropriate if we only assume that humans are the only subjects[22]. Meanwhile, the conditions-based method can provide recognition of the status of a legal subject to a non-human entity[23]. They have legal personality not because of something inherent in nature or because of how they will respond to the law, but simply because they are, based on facts, treated by law as having legal rights and obligations[22]. Thus, it is recognized that legal entities as legal subjects are pioneers in the creation of artificial legal subjects. The emergence of a legal entity is an example which states that personification has taken place and been realized. if AI is recognized as a legal subject,

it does not mean that the law is bound to give AI all legal rights and obligations that are owned by legal subjects in general, let alone those owned by humans[11].

Artificial Intelligence is a technological breakthrough that can act like humans, of course it is appropriate to have specific rules to regulate AI. In Indonesia, laws and regulations covering information technology issues are contained in Law Number 19 of 2016 concerning Amendments to Law Number 2008 concerning Information and Electronic Transactions (hereinafter referred to as the ITE Law). Regarding AI itself, the ITE Law does not clearly define artificial intelligence technology, but if you look at the characteristics of AI, it can be categorized as an electronic system and electronic agent[24].

Article 1 Number 5 of the ITE Law, explains what is meant by an Electronic System is a series of electronic devices and procedures that function to prepare, collect, process, analyze, store, display, announce, transmit, and/or disseminate Electronic Information[19]. Then Article 1 Number 8 defines an Electronic Agent as a device of an Electronic System that is made to perform an action on certain Electronic Information automatically held by a Person[25].

AI arrangements according to the ITE Law only apply AI as a legal object and not as a legal subject. Based on Article 1 of the ITE Law, those referred to as legal subjects include: Sender; Recipient; Person; Business entity; and Government[26].

The concept of copyright protection in Indonesia when someone creates a work will automatically get copyright protection because it adheres to the declarative principle. When a work is made into a tangible form. According to the World International Intellectual Organization (WIPO) copyright refers to the rights of the creator[4].

Digital creations produced using computer media are still someone's copyrighted work, in the sense that that person has the status of creator because basically he contributes to the creation of the copyrighted work, in contrast to AI which does not require much human contribution, which can do a task to produce copyrighted works only with input data. If explored further, the use of AI in the creative field should not be equated with creations by humans[10]. The process of creating a work of art comes from the creator himself, in this case of course humans, by using or not using the help of digital tools a creator contributes to the ideas, imagination, inspiration, and creativity used in creating a work in a tangible form.

UUHC regulation in Indonesia aims to protect the creator of his work which is an exclusive right including moral rights and economic rights as stipulated in Article 1 paragraph (1) UUHC states that Copyright arises automatically based on declarative principles after a work is realized in a tangible form without reducing restrictions in

accordance with the provisions of the legislation[14]. The moral right inherent in copyright is a basic principle that everyone has the right to make a creation and everyone has the obligation to respect or value the copyrighted work of others by not using or changing other people's creations without permission.

Philosophically, moral rights are born before economic rights. Considering that today, many copyrighted works are distributed or uploaded free of charge to social media belonging to their creators, moral rights are very important rights considering that moral rights protect the personal interests of the creator because moral rights are inherent and inseparable from the creator regardless of economic considerations[13]. With these moral rights, the creator has the right to prevent any form of change in creation that could damage the creator's appreciation and reputation. Basically, the moral rights in copyright are attached to the creator, but in the context where the copyrighted work is used without approval for AI development, it will be difficult to trace unless the AI has uploaded the creation and the painting style may change because AI takes data from various creators[12].

The use of data in the form of existing paintings constitutes a form of duplication, as stated in Article 1 number 12 of duplication, namely the process, deed, or method of duplicating one or more copies of Works and/or phonograms in any way and form, permanently or temporarily. Meanwhile, if the use of the creation aims to obtain economic benefits from various sources or is paid, it is a commercial use[27]. So that if a party develops or uses AI to create a new image with the creation of the original creator as input data, it must obtain permission from the creator or copyright holder in Indonesia[3].

However, UUHC also discusses copyright restrictions, namely that it is possible to use works from authors without obtaining permission. In relation to the use of AI, Article 43 letter d UUHC states the creation and distribution of Copyright content through information and communication technology media that is non-commercial and/or beneficial to the Author or related parties, or the Creator states that he has no objection to the production and distribution. Based on this Article, basically if a work is disseminated through information technology media it is not a copyright infringement if it is used for things that are not commercial in nature, or benefit the Author. Of course, it is not a Copyright infringement if the Author agrees that his creation is used, but if the Author expresses objection to the creation and distribution of Copyright content, then it is a Copyright infringement[28].

4. CONCLUSION AND RECOMMENDATION

Today, we can define AI as sophisticated machines that can run autonomously by thinking, learning, and making independent decisions like humans. Basically, AI can act and think like humans by being trained and given data to carry out tasks for a certain purpose. However, in the case of AI as the creator of a creation or work of art it still raises various problems because it deviates from the concepts contained in UUHC. The work of artificial intelligence that does not involve human intervention in the process of making the work will not have the validity to be protected by copyright. Then, to assess its validity, it is carried out in several stages, namely by looking at the type of work, examining human intellectual intervention and personality expressions in works, and reviewing the authenticity of the work.

The author's right that is protected is for the creation expressed in a tangible form by the creator. The creator is a person or several people who produce unique and personal creations. Thus, the author is of the opinion that if the work is produced using AI, then the Exclusive Rights are still held by the creator, namely one person or several persons in a legal position as a legal subject, because AI cannot be equated with legal subjects as a legal subject.

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