JURNAL AKTA
Volume 12 No. 3, September 2025
SINTA 2,
Decree No. 164/E/KPT/2021

The Exploitation of Artificial Intelligence in Digital Artworks: The Challenges of Copyright Recognition in the Post-Human Era

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Abstract. *The purpose of this research is to provide an in-depth explanation that the development of artificial intelligence technology (AI) has revolutionized the process of creating digital artworks. AI is now able to produce works that resemble, even surpass, human creations. This phenomenon poses significant legal challenges, especially related to copyright recognition. In the context of the post-human era, where the boundaries between humans and machines are increasingly blurred, the fundamental question arises as to who deserves to be called a creator: human, machine, or both. This article examines the current copyright legal framework and examines the extent to which legal norms are able to accommodate the existence of AI as a creative entity. The method used is a normative juridical approach with analysis of national and international regulations, as well as case studies of a number of AI-based digital artworks. The findings show that the current legal system is not fully ready to regulate the protection of copyrights involving AI autonomously. Therefore, regulatory updates are needed that are responsive to technological advances and still ensure justice for creative actors in the digital era.*

Keywords: *Artificial Intelligence; Digital Artwork; Copyright; Technology.*

1. INTRODUCTION

Intellectual Property Rights (IPR) is a form of legal protection against an invention given to the inventor, whether the invention is for himself or a group, either for the benefit of ownership or for commercialization.[1] This IPR is given to protect all forms of creation and innovation by ensuring that individuals or groups as inventors can benefit from their intellectual results.

IPR includes the protection of patents, trademarks and geographical indications, copyrights, integrated circuit layouts and trade secrets.[2] Patents can provide protection for inventors and give inventors exclusive rights to be able to use or commercialize their inventions for a certain period of time.

[1] Bernard Nainggolan, Enforcement of Intellectual Property Law, ed. Tri Rudiyanto, Publika Global Media, Print I (Yogyakarta: Publika Global Media, 2021), 2,

[2] Nanda Dwi Rizkia and Hardi Ferdiansyah, Intellectual Property Rights An Introduction, ed. Evi Damayantti, Widina Bhakti Persada, Print Pe, (Bandung: Widina Bhakti Persada Bandung, 2022).

Trademarks, with the exclusive rights given, every name listed in the brand, logo and other identification that distinguishes goods and services in the business world can protect every individual or group that creates. Copyright is like the existence of works in the form of music, literature, and art, so with these exclusive rights the inventor can reproduce, distribute, and display his work and protect it from unilateral recognition from others. Trade secrets can protect information about a business, such as recipes or formulas, processes, or methods that are practiced in the business world. With the existence of IPR, especially in a modern era like this, it is important to maintain and protect every inventor. With the advent of digital technology and the inevitable pace of globalization, which has opened up a wide space and made it easy to copy what already exists, intellectual property needs to be considered and protected across borders. However, in an era like this, it makes it easy to distribute intellectual property across borders without proper authorization.[3]

In this era, the world was introduced to Artificial Intelligence (AI) and emerged as a powerful tool to change the way intellectual property (IPR) is created, managed, and exploited. Of course, these technological changes and developments create new challenges and opportunities for inventors, both in the business world and other fields related to intellectual property. On the positive side, AI provides convenience for inventors and of course creates new types of intellectual property, increases efficiency, and exploits other intellectual property easily. However, it is possible that the emergence of AI also has an impact on legal and ethical issues for the ownership of a very complex intellectual property, ranging from ownership, patentability, copyright infringement, and data protection.[4] For example, the case between the Writers Union and OpenAI that occurred in the United States, which is running in the United States District Court, the Authors Guild along with George RR Martin, John Grisham, Jodi Picoult, and Shanbhag Lang all represent professional writers whose livelihoods depend on the works they create. In their complaint, the plaintiffs claim that Open AI and the organizations that regulate it violated copyright rules by reproducing their copyrighted works to train LLMs (*Large Language Models*). The plaintiffs allege that their work has been used to train the data, which leads to improvements in the quality of tools like Chat GPT. When requested, ChatGP can provide a detailed summary, analysis, and outline of their work that would not have been possible if the material had not been absorbed by the LLM. The plaintiffs say that Open AI has multiple opportunities to license their work and should license their work now, protecting authors from exploitation without approval, awards, or compensation.[5] Therefore, this paper will discuss the history of intellectual property rights, which aims to learn why there is a need for intellectual property rights protection based on historical perspectives. Then this writing also discusses how AI affects the current law.

Looking at the theory of legal certainty initiated by Gustav Radbruch, it has emphasized three basic values in law, namely, justice, utility, and legal certainty. According to him,

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[3] Yvonne Nyaboke, "Intellectual Property Rights in the Era of Artificial Intelligence," *Journal of Modern Law Amd Policy* 4, no. 2 (2024): 58–72, https://doi.org/10.54389/voaf9040.

[4] Mohd Akhter Ali and M Kamraju, "Impact of Artificial Intelligence on Intellectual Property Rights: Challenges and Opportunities," *Osmania University Journal of IPR [OUJIPR]* 1, no. 1 (2023): 21–50.

[5] Anna Saber, Neda Shaheen, and Suzanne Giammalva, "6 AI Cases And What They Mean For Copyright Law," Law360 (New York, 2024), https://www.crowell.com/a/web/7QtNejMH1FSM1n5Ddt6cdU/6-ai-

legal certainty is essential for society because it provides a basis for individuals to know what is expected of them and how they can expect to be treated by the legal system. In addition, Hans Kelsen in his "Theory of Pure Law", also states that legal certainty is one of the main goals of any legal system.[6] In the context of AI, legal certainty is needed to provide protection to creators, users, and rights holders for works generated or influenced by AI. The urgency to reformulate and modernize Indonesia's Copyright Law in the context of AI cannot be ignored.[7] In addition to legal and ethical challenges, there are also great opportunities that can be achieved by Indonesia. However, to achieve this, cooperation is needed between the government, industry, academia, and civil society to create a Copyright Law that is fair, balanced, and supports innovation in the digital era.[8]

2. RESEARCH METHODS

This research used a normative juridical method with a literature, legislation and case study approach. This data was obtained from a variety of legal sources, including statutes, government regulations, as well as academic literature and industry reports. This analysis was carried out using a descriptive method by examining the suitability of existing regulations and practices in the field with the potential for future development.

3. RESULT AND DISCUSSION

3.1. Intellectual Property Rights Reviewed in Historical Perspective

The development of intellectual property in historical civilizations can be seen in the Ancient Chinese period. The patent system was the first intellectual to develop in Ancient Chinese society. The patent system is an evolution of a carefully crafted bargaining process that encourages the creation and public disclosure of new and useful technological advances, and therefore to reward it is rewarded for exclusive monopolies.

Within a limited period of time. Such exclusive rights in Ancient China were granted to skilled craftsmen such as silk weavers. The rulers of Ancient China forced artisans to be able to make products only for the rulers. And in return, these artisans were given the prestigious title of suppliers and followers of the king.[9]

Since 500 BC there has been a rule that leans towards modern patent law. The Greek scholar Athenaeus of Naucratus wrote "Dheipnosophistae", which describes the basic form of patent law in the 3rd century AD. "Dheipnosophistae" itself means "The Sophists of the Supper" and tells the story of a series of banquet dialogues that give a detailed account of Greek history.

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[6] Kelsen, Hans, Pure Theory of Law. Translated by Knight, Max. (Berkeley, University of California Press, 1967), 148.

[7] Sobirin, Ruhiat. "Legal Protection of the Economic Rights of e-book Creators on the Process of Distributing e-books Based on Law No. 28 of 2014 concerning Copyright Associated with Law No. 11 of 2008 concerning Electronic Information and Transactions." *Journal of Media Justitia Nusantara Law 7*, No. 1, (2017) :167-184. doi:10.30997/jill.v12i2.2624.

[8] Simatupang, Khwarizmi Maulana, "Juridical Review of Copyright Protection in the Digital Realm" *Scientific Journal of Legal Policy 15*, No. 1. (2021):67-80. https://dx.doi.org/10.30641/kebijakan.2021.V15.67-80.

[9] Brandon Furdock, "Origins of Patent Law," Chicago-Kent Journal of Intellectual Property, 2023, https://studentorgs.kentlaw.iit.edu/ckjip/origins-of-patent-law/#_ftn3.

In depth the Dheipnosophistae is presented in a dialogue from Athenaeus to a friend conducted during a series of banquets held in the plantation of the rich patron of the arts. The part of the Dheipnosophistae article that makes it part of the patent law is "When one of the chefs invented his own delicious dish, no other person should be allowed to make use of this invention before the end of a year, only the inventor himself; during which time he would have the business profit from it, so that others would compete and surpass each other in such inventions." This means that when one of the chefs invents his own delicious dish, no one else can use this invention before the end of the year, during which time he will profit from his business, so that others will compete and surpass each other in the invention[10].

Although Deipnosophistae only has a brief summary of the patent system, we can see some unique comparisons with today's patent system. First, that hundreds of years or even thousands of years before modern patent jurisprudence, the Greeks had realized the limited right to exclude in order to provide a strong incentive for inventors or inventors. The Greeks recognized that patent law struck a balance between the need to promote innovation through patent protection and the importance of facilitating imitation and refinement through imitation. This can be seen by the one-year deadline for the right to exemption. Second, only certain recipes, namely (delicious dishes) that deserve a monopoly. A delicious dish is one that represents a significant contribution to the art and not just a minor improvement on what is already known.[11]

which was ratified in 1474.[12] Prior to the Venice Patent Act, trade traffic in Venice was controlled by trade unions that united to set prices and ensure that profits for certain industries did not come out of the union.[13] Patent law protects inventors from union power. This law gives inventors exclusive rights to their inventions for ten years from the time the patent is granted. The Venice patent law of 1474 stated, "every person who builds a new and innovative device in this city, which was not previously made in our country, must notify the office of the Public Welfare Agency when it has been perfected so that it can be used and operated." Therefore, the Venice patent law establishes many modern bases on patentability.[14]

Subsequently, in the 16th century Patents began to spread throughout Europe.[15] The first French patent was granted in 1551. Uniquely it was granted a Patent to Theseus Muito of Bologna, a Venetian who had traveled to France.[16] This patent was aimed at

[10] Gene Quinn, "The Law of Recipes: Are Recipes Patentable?," ipwatchdog.com, 2012, https://ipwatchdog.com/2012/02/10/the-law-of-recipes-are-recipes-patentable/id=22223/

[11] Stefania Fusco, "Lessons from the Past: The Venetian Republic's Tailoring of Patent Protection to the Characteristics of the Invention," Journal of Technology and Intellectual Property 17, no. 3 (2020): 301– 48, https://doi.org/10.2139/ssrn.3331687

[12] Ben Mceniery, "Patent Eligibility and Physicality in the Arly History of Patent Law and Practice," University of Arkansas at Little Rock Law Review 38, no. 2 (2016): 175–207, https://lawrepository.ualr.edu/lawreview/vol38/iss2/2/.

[13] Fusco, "Lessons from the Past: The Venetian Republic's Tailoring of Patent Protection to the Characteristics of the Invention."

[14] Ibid.

[15] Fusco, "Lessons from the Past: The Venetian Republic's Tailoring of Patent Protection to the Characteristics of the Invention."

[16] Stefano Comino, Alberto Galasso, and Clara Graziano, "The Diffusion of New Institutions: Evidence from Renaissance Venice's Patent System," National Bureau of Economic Research (Cambridge, 2017), https://doi.org/10.3386/w24118

how to make glassware, which was a specialty of Venice. The right granted was a permit and privilege that for a period of ten years he himself would make it in the Venetian style, and have the goods for sale. Then, after the 16th century, in the 17th century the patent system began to extend to England.[17] The Monopoly Act was enacted in response to the practice of granting "letter patents" by the United Kingdom. The right to exclude granted by the "letter patent" extended beyond invention and covered the entire field of economic activity such as, soap and glass. After the British Empire or Queen Elizabeth I granted 50 patents in less than 5 years, there was a shock from the public who thought the kingdom had abused power. Then King James, when he came to power, responded by banning all monopoly activities except for new invention projects. Based on that, the English parliament adopted the rule in 1624 with the issuance of the Statute of Monopolies. Over the next 100 years, English case law developed around the Monopoly Statute. The case law will be the basis of the United States (U.S.) patent system. modern.

Continuing on June 21, 1788, formal means of obtaining patents in England began to develop and with the ratification of the U.S. constitution. According to Thomas Jefferson, "patent monopolies were not designed to guarantee the inventor's natural right to his invention. Rather, it is an award, an encouragement, to produce new knowledge." Although the patent system has evolved from ancient civilizations to the present day, the basic concept remains the same to encourage the advancement of useful science and art.16 Furthermore, at the international level, regulations in the field of Intellectual Property Rights (IPR) were first born with the Paris Convention in 1883 which was signed by 14 countries. This convention is the first major international convention that aims to protect IPR for creators and inventors. The need for intellectual property protection became clear when foreign exhibitors refused to attend the international exhibition of inventions in Vienna, Austria in 1873, because they feared that their ideas would be stolen and commercially exploited in other countries. The Paris Convention contains patents, industrial design, service marks, and geographical indications. Then in 1886, after a campaign carried out by the French writer Victor Hugo and his Association Litteraire et Artique Internationale, the Berne Convention was born to protect literary and artistic works.[18] Based on the two conventions, different secretariats were established to enforce their respective treaties, then in 1893 the two organizations then united and became the International Bureau for the Protection of Intellectual Property (BIRPI) based in Bern, Switzerland and in 1970 the convention establishing the world IPR organization or WIPO came into force and BIRPI changed to the WIPO we know today.

In Indonesia itself, the existence of Intellectual Property Law has existed since the time of the Dutch Government, where in 1885 the Dutch Government promulgated the Trademark Law, then followed in 1910 by the Patent Law, and the Copyright Law in 1912. Although the Paris Convention existed in 1883, Indonesia, which at that time was called the Netherlands East Indies, only became a member of the convention in 1888 and became a member of the Bern Convention in 1914. Furthermore, in the era of independence on August 17, 1945, Indonesia declared its independence and stipulated provisions in the transition of the 1945 Constitution, that all laws and regulations of

[17] Wilson Gunn, "The History of Patents," wilsongunn.com, accessed November 11, 2024, https://www.wilsongunn.com/history/history_patents.html

[18] WIPO, "WIPO-A Brief Hostory," World Intellectual Property Organization, accessed November 11, 2024, https://www.wipo.int/about-wipo/en/history.html

Dutch heritage were still enforced. So that it has implications that the above intellectual property law will remain in effect after independence.[19]

Furthermore, in 1953, the first national regulation was issued regulating patents issued by the Minister of Justice of the Republic of Indonesia, namely the Announcement of the Minister of Justice Number J.S.5/41/4 which basically regulates the provisional submission of domestic patent applications and the Announcement of the Minister of Justice Number J.G.1/2/17 concerning the provisional submission of foreign patent applications.[20] Continuing on October 11, 1961, the Government of Indonesia issued Law No. 21 of 1961 which regulates Company Trademarks and Trademarks which is a substitute for the Dutch Heritage Trademark Law, this law became the first law in the field of IPR.[21] Then on May 10, 1979, Indonesia ratified the Paris Convention through Presidential Decree Number 24 of 1979. After Indonesia issued the Trademark Law, the regulation on IPR continued with the issuance of the Copyright Law No. 6 of 1982 which at the same time replaced the Dutch Heritage Copyright Law. Indonesia's consistency in IPR protection continued until the Government of Indonesia signed the TRIPs Agreement (Final Act Embodying the Result of the Uruguay Round of Multilateral Trade Negotiations), which includes the Agreement on Trade Related Aspects of Intellectual Property Rights. The consistency of IPR protection was strengthened by the issuance of a Law in 2000, which regulates Trade Secrets, Industrial Design and Integrated Circuit Layout Design. In line with that, the Government of Indonesia has until now revised the laws mentioned above which are currently enacted such as Law No. 28 of 2014 concerning Copyright, Law No. 20 of 2016 concerning Trademarks, Law No. 65 of 2024 concerning the Third Amendment to Law No. 13 of 2016 concerning Patents, Law No. 30 of 2000 concerning Trade Secrets, Law No. 32 of 2000 concerning Integrated Circuit Layout Design, Law No. 29 of 2000 concerning Plant Varieties, and Law No. 31 of 2000 concerning Industrial Design

3.2. The Influence of Artificial Intelligence in the Digital Era and Its Implications for the Law

Protection of copyrighted works is one of the important principles in intellectual property law by giving the creator or owner the exclusive right to control the use and distribution of the work. There are several reasons that support the protection of copyrighted works. The first reason is that the protection of copyrighted works can provide incentives for individuals or groups to innovate and create new works. By guaranteeing that creators will get economic benefits from their work, it will encourage creators to invest time, energy, and resources in creating a work. Without legal protection, such individuals or groups may not have a strong enough drive to produce new works that have the potential to contribute to the development of culture, technology, and the arts.[22] This can certainly happen, if there is no appreciation or validation for the works they produce.

Then second, the protection of copyrights also provides certainty of justice in the use and distribution of works. With exclusive rights, the creator or owner of a work will have

[19] Directorate General of Intellectual Property of the Ministry of Law & Human Rights of the Republic of Indonesia, "History of the Development of Intellectual Property Protection," dgip.go.id, accessed November 23, 2024, https://www.dgip.go.id/tentang-djki/sejarah-djki.

[22] Fetum. "Legal Protection for Creators and Copyright Holders of Instagram Creator Content". Merdeka Law Journal 2, No.2 (2021): 87-99.

full control over how his work is used and who can use it. This can help prevent misuse or unauthorized use of the work, as well as ensure that creators can be fairly compensated for their efforts.[23] Furthermore, the protection of copyrighted works can contribute to the sustainability of the creative and cultural industries. Rewarding creators in the form of royalties or income from sales will allow them to continue to work and create new works. Thus, the protection of copyrighted works not only protects current creators, but also plays a role in encouraging the growth and development of culture, art, and innovation in the future.

Regulations governing copyright in Indonesia have existed since the colonial era in 1912 with the issuance of Auteurswet Stb. Number 600. The law became the basis for the first Copyright Law in Indonesia which was enacted on September 23, 1912. Then, in 1982, the Government of Indonesia independently formulated the national Copyright Law, which was inaugurated as Law No. 6 of 1982 on copyright. Over time, the law has undergone various changes and additional regulations. Until now, the latest provisions regarding Copyright in Indonesia are regulated in the Copyright Law No. 28 of 2014. Indonesia's Copyright Law covers moral rights and economic rights that are exclusively granted to creators.[24] Article 5 of the Copyright Law states that moral rights are granted to creators and cannot be revoked even after the copyright protection period has expired. Moral rights cannot be revoked as long as the creator of the work is alive. However, after the creator of the work dies, moral rights can be transferred through a will or in accordance with the provisions of the applicable law[25]

Meanwhile, Article 8 of the Copyright Law, which regulates economic rights, refers to the right of creators or copyright holders to profit from their works. The activities included in the use of economic rights include various aspects, such as the publication of works, the reproduction or duplication of works of works in various forms, translation, adaptation, arrangement, distribution, performance, announcement, communication, and rental of works of works. In other words, Article 8 of the Copyright Law affirms that the creator or copyright holder has the exclusive right to control and utilize his work in these aspects in support of commercial purposes. This then underlines the importance of economic rights protection as a basis for creators or copyright holders to manage and monetize their works.[26]

Currently, the regulation of copyrights of works produced by Artificial Intelligence (AI) in Indonesia is an interesting issue to debate, considering the speed of development of AI technology and its ability to produce works similar to human creations. In this digital era, AI has been able to create music, paintings, writings, and other works that can add economic value. For example, a painting titled "Portrait of Edmond de Bellamy" created by an AI algorithm known as Generative Adversarial Networks (GANs) by a collaborative

[23] Haenlein, M., & Kaplan, A. "A brief history of artificial intelligence: On the past, present, and future of artificial intelligence". California Management Review 61, No.4. (2019):5–14. https://doi.org/10.1177/000812561986492.

[24] Ramli, Ahmad M., et al., "Intellectual Property Protection in the Utilization of Information Technology in the Time of Covid-19." Journal of De Jure Legal Research 21. No.1 (2021):190-205. https://doi.org/10.30641/dejure.2021.v21.45-58

[25] Indonesia, Law on Copyright, Law No.28 of 2014. LN Year 2014, Number 266, TLN Number 5599

[26] Echo, Ari Juliano. "The Problem of Using Creations as Input Data in the Development of Artificial Intelligence in Indonesia in Indonesia". Technology and Economics Law Journal 1, No. 1, (2022). https://scholarhub.ui.ac.id/telj/vol1/iss1/1

artist group in France called Obvious.[27] The painting was then sold at auction at Christie's in 2018 and gained widespread attention. Although there are no exact figures about the profit, the painting sold for $432,500, exceeding the original estimate.[28] Another example is in the advertising and graphic design industries. Many companies use AI-generated art to produce engaging visual content. For example, a company might use AI to create an attractive and striking ad design. With this, they can save on production costs and speed up the design process, which in turn can increase their profits.

Furthermore, within the existing legal framework, it must be forced to face various challenges in overcoming the unique characteristics and complexities related to innovations created by AI. Advanced AI machines, such as machine learning algorithms and neural networks, will certainly produce new and inventive outputs that inevitably blur the boundaries of traditional intellectual property classification. These outputs also raise questions related to the criteria for feasibility, novelty, and ambiguity to obtain patents for AI inventions. Epic AI capabilities are of great concern regarding the scope and enforcement of IPR protections. The ability to autonomously produce original works challenges traditional notions of authorship, as what AI produces makes it unclear whether the AI system or its creator is a human recognized as the rightful owner of the work. Of course, this requires consideration of important cases and legal precedents to be able to evaluate how the courts have handled the issue and assess its effectiveness in handling intellectual property disputes in AI.[29]

This problem also has an impact on the legal framework that inevitably has to evolve and adapt to keep pace with the rapid advancement of AI. This development of course includes the development of specific regulations and guidelines that cater to the unique features of inventions, works, and trademarks created by AI. This is important because it encourages the growth of an environment conducive to research and development. and the commercialization of AI. Collaborative efforts between regulators, legal experts, technology experts, and industry stakeholders are needed to develop the latest legal framework that encourages innovation, facilitates fair competition, and protects the interests of creators and innovators in the field of artificial intelligence or AI.[30]

In addition to these efforts, it is necessary to understand how the strategy needs to be carried out. One of the main strategies that needs to be implemented immediately is proactive legislative reform and policy initiatives. This strategy certainly highlights that it is important to update existing Intellectual Property Laws to provide protection for inventions, works, and brands generated by AI. Then it is necessary to set clear guidelines regarding the results or works of AI. While the emergence of AI poses its own challenges, it is also necessary to emphasize the importance of striking a balance between providing protection to inventors and creators by ensuring that AI technology can continue to advance and develop to provide benefits to society.

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[27] Nascimento, Beatriz Lopes. "The Digital Art Paradox - Understanding Its Issues and Dynamics" Instituto Universitàrio De Lisboa 27, No.2 (2022) : 1-70.

[28] Ibid.

[29] Naeem Allah Rakha, "Exploring the Role of Block Chain Technology in Strengthening International Legal Guarantees for Investment Activity," International Journal of Law and Policy 1, no. 5 (2023): 1–8, https://irshadjournals.com/index.php/ijlp/article/view/37.

[30] Ubaydullayeva, "Intellectual Property in the Era of Artificial Intelligence: Challenges and Solutions."

Based on the first discussion, the International Intellectual Property Law was born from several international conventions. Therefore, of course, in this discussion, it is important that the strategy for the emergence of AI must also involve the role of international collaboration in overcoming intellectual property challenges in AI. In this paper, the author is of the view that there is a need for harmonization and coordination between countries to establish consistent standards and legal frameworks to protect intellectual property generated by AI. Of course, this discussion should not be separated from international organizations such as the World Intellectual Property Organization (WIPO) in facilitating discussions and knowledge sharing between countries, especially the countries contained in the convention.

3.3. Exploitation of Artificial Intelligence in Digital Artworks

Thus, advances in artificial intelligence (AI) technology have fundamentally changed the landscape of digital artwork creation. AI is no longer just a tool in the creative process, but has transformed into an autonomous agent that is able to produce works independently, without direct human involvement. This phenomenon raises complex legal issues, especially related to the recognition and protection of copyrights of works produced by non-human entities.

This title underscores contemporary issues in the realm of intellectual property law, namely the challenges faced by the legal system in responding to the existence of AI-based digital artworks. The current copyright law system, both in national and international contexts, still relies heavily on the principle of creation by human subjects who have intellectual and emotional capacity. When a work is generated by an algorithmic system without significant human creative contribution, the question arises about who should be recognized as the copyright holder—whether the user, the developer, or even the AI itself.

Furthermore, this problem is framed in the context of *the post-human era*, which is a phase of human civilization development in which the boundary between humans and technology becomes increasingly blurred. In this era, artificial intelligence not only replicates human activities, but also creates new cultural values, including in the realm of art. As a result, the anthropocentric legal paradigm is no longer adequate to respond to the challenges that arise, so a new approach that is more adaptive and inclusive to the development of cutting-edge technology is needed.

Thus, the main focus of this study is to critically analyze the relationship between the exploitation of AI in digital art creation and the current copyright recognition system. Its main objective is to identify regulatory gaps, consider ethical and philosophical dimensions, and offer relevant juridical perspectives in formulating copyright law policies that are responsive to the post-human era.

4. CONCLUSION

The exploitation of artificial intelligence in the creation of digital artworks presents a serious challenge to the copyright law system that is still based on anthropocentric principles. In the post-human era, where the boundaries between human and machine creativity are becoming increasingly blurred, the legal system is required to make normative adjustments that are able to accommodate new realities. Without progressive regulatory updates that are responsive to technological advancements, copyright

recognition of AI-generated works will continue to be a gray area that has the potential to create legal uncertainty and injustice.

5. REFERENCES

Journals:

Ali, Mohd Akhter, and M. Kamraju. "Impact of Artificial Intelligence on Intellectual Property Rights: Challenges and Opportunities." *Osmania University Journal of IPR* 1, no. 1 (2023): 21–50.

Echo, Ari Juliano. "The Problem of Using Creations as Input Data in the Development of Artificial Intelligence in Indonesia." *Technology and Economics Law Journal* 1, no. 1 (2022). https://scholarhub.ui.ac.id/telj/vol1/iss1/1

Fetum. "Legal Protection for Creators and Copyright Holders of Instagram Creator Content." *Merdeka Law Journal* 2, no. 2 (2021): 87–99.

Haenlein, M., and A. Kaplan. "A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence." *California Management Review* 61, no. 4 (2019): 5–14. https://doi.org/10.1177/000812561986492.

Nascimento, Beatriz Lopes. "The Digital Art Paradox - Understanding Its Issues and Dynamics." *Instituto Universitàrio De Lisboa* 27, no. 2 (2022): 1–70.

Nyaboke, Yvonne. "Intellectual Property Rights in the Era of Artificial Intelligence." *Journal of Modern Law and Policy* 4, no. 2 (2024): 58–72. https://doi.org/10.54389/voaf9040.

Rakha, Naeem Allah. "Exploring the Role of Block Chain Technology in Strengthening International Legal Guarantees for Investment Activity." *International Journal of Law and Policy* 1, no. 5 (2023): 1–8. https://irshadjournals.com/index.php/ijlp/article/view/37.

Ramli, Ahmad M., et al. "Intellectual Property Protection in the Utilization of Information Technology in the Time of Covid-19." *Journal of De Jure Legal Research* 21, no. 1 (2021): 190–205. https://doi.org/10.30641/dejure.2021.v21.45-58

Simatupang, Khwarizmi Maulana. "Juridical Review of Copyright Protection in the Digital Realm." *Scientific Journal of Legal Policy* 15, no. 1 (2021): 67–80. https://dx.doi.org/10.30641/kebijakan.2021.V15.67-80.

Sobirin, Ruhiat. "Legal Protection of the Economic Rights of e-book Creators on the Process of Distributing e-books Based on Law No. 28 of 2014 concerning Copyright Associated with Law No. 11 of 2008 concerning Electronic Information and Transactions." *Journal of Media Justitia Nusantara Law* 7, no. 1 (2017): 167–184. https://doi.org/10.30997/jill.v12i2.2624.

Ubaydullayeva. "Intellectual Property in the Era of Artificial Intelligence: Challenges and Solutions."

Books & Others:

Directorate General of Intellectual Property of the Ministry of Law & Human Rights of the Republic of Indonesia. "History of the Development of Intellectual Property Protection." *dgip.go.id*. Accessed November 23, 2024. https://www.dgip.go.id/tentang-djki/sejarah-djki.

Elsen, Hans. *Pure Theory of Law*. Translated by Max Knight. Berkeley: University of California Press, 1967.

Furdock, Brandon. "Origins of Patent Law." *Chicago-Kent Journal of Intellectual Property*, 2023. https://studentorgs.kentlaw.iit.edu/ckjip/origins-of-patent-law/#_ftn3.

Giammalva, Suzanne, Anna Saber, and Neda Shaheen. "6 AI Cases And What They Mean For Copyright Law." *Law360* (New York, 2024). https://www.crowell.com/a/web/7QtNejMH1FSM1n5Ddt6cdU/6-ai-

Gunn, Wilson. "The History of Patents." *wilsongunn.com*. Accessed November 11, 2024. https://www.wilsongunn.com/history/history_patents.html.

Indonesia. *Law on Copyright*, Law No. 28 of 2014. *State Gazette of 2014, No. 266*, Supplement No. 5599.

Nainggolan, Bernard. *Enforcement of Intellectual Property Law*. Edited by Tri Rudiyanto. Yogyakarta: Publika Global Media, 2021.

Quinn, Gene. "The Law of Recipes: Are Recipes Patentable?" *ipwatchdog.com*, 2012. https://ipwatchdog.com/2012/02/10/the-law-of-recipes-are-recipes-patentable/id=22223/

Rizkia, Nanda Dwi, and Hardi Ferdiansyah. *Intellectual Property Rights: An Introduction*. Edited by Evi Damayantti. Bandung: Widina Bhakti Persada, 2022. Comino, Stefano, Alberto Galasso, and Clara Graziano. "The Diffusion of New Institutions: Evidence from Renaissance Venice's Patent System." *National Bureau of Economic Research* (Cambridge, 2017). https://doi.org/10.3386/w24118.

WIPO. "WIPO – A Brief History." *World Intellectual Property Organization*. Accessed November 11, 2024. https://www.wipo.int/about-wipo/en/history.html