

CREATIONS AND INVENTIONS FROM ARTIFICIAL INTELLIGENCE OUTCOME IN THE PERSPECTIVE OF COPYRIGHT AND PATENTS

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ABSTRACT

Artificial Intelligence (AI) has developed in such a way that it is capable of producing creations and inventions without human intervention through the training of a number of datasets. This normative juridical research aims to look at AI problems from the perspective of AI as a subject and AI results as an object of copyright and patent protection, as well as examining the implications of using creations in datasets to train AI. This research found that AI cannot become a creator and inventor because moral and human rights are reserved for humans, besides that AI cannot take advantage of the economic rights obtained from the protection of creation or patents. This study also found that the use of datasets containing other people's creations as AI development material has the potential to cause copyright violations. This potential is mitigated by several countries by implementing regulations related to TDM or data scraping for AI machine learning. Finally, this study also found that creations and inventions resulting from AI in general cannot become objects protected by the copyright regime unless they receive direct human contribution or are formulated in statutory regulations such as in the CGW copyright regime in the UK. This research suggests that practices in other countries in copyright and patent protection regimes related to AI can be used as a reference for legal politics in Indonesia to create AI regulations that balance the moral and economic rights of Creators and Inventors with the pace of AI innovation.

Keyword: Artificial Intelligence, Copyrights, Patent.

1. INTRODUCTION

At the end of 2022, the developer of the artificial intelligence (AI) program OpenAI released a message robot (chatbot) called ChatGPT which can create new data in text form according to user instructions (prompts) using a Generative Pre-Trained Transformer (GPT) process based on the Large Language Model (LLM).¹ In the same year, OpenAI also released the results of the latest development of an AI program that is capable of creating artistic images from written descriptions via GPT-3 called DALL-E 2.² Not only text and artistic images, AI has also been developed to create sound, photos and videos that imitates the image and voice of a person or character is called a deepfake.³ Apart from producing inventions, an AI called the Device for the Autonomous Bootstrapping of Unified Science (DABUS), created by Thaler, developed to produce

- 1 Billy Perrigo, "The A to Z of Artificial Intelligence," *TIME*, 13 April 2023, <https://time.com/6271657/a-to-z-of-artificial-intelligence/>, diakses tanggal 3 November 2023, pukul 09.00 WIB.
- 2 OpenAI, "DALL-E: Creating Images from Text," *OpenAI*, 5 Januari 2021, <https://openai.com/research/dall-e>, diakses tanggal 3 November 2023, pukul 09.00 WIB.
- 3 Ian Sample, "What are Deepfakes – and How Can you Spot Them," *The Guardian*, 13 Januari 2020, <https://www.theguardian.com/technology/2020/jan/13/what-are-deepfakes-and-how-can-you-spot-them>, diakses tanggal 3 November 2023, pukul 09.00 WIB.

inventions that were submitted for patents.⁴

Through the GPT process, an AI generative model can produce new data. This is done by training the AI using a dataset (pre-trained models) in the form of images, text or audio to produce similar data as desired.⁵ ChatGPT states that the data it uses includes sources such as books, articles, websites and other written materials that are publicly available as of September 2021. Several tests show that ChatGPT was not trained using the latest data because its development still focuses on the accuracy and factuality of the answers given.⁶ These things provide a few examples of how generative AI works in creating data based on instructions, questions, or descriptions given to the program by using the dataset that has been input to train it.

Data called datasets are used by AI as input or input data to train and provide knowledge, so that AI can process the dataset to produce a creation or discovery. That the information that constitutes the input data is publicly available, but the data used is inseparable from copyright protection held by the creator, so this raises questions regarding the implications of AI in using creative sources as material for the products it produces. Therefore, from the perspective of Intellectual Property Rights (IPR), various thoughts regarding AI arise regarding the legality of the concept of AI in the subject of creating creative works, then the implications of using created data or inventions to train AI, and finally the protection of intellectual property works produced by AI.

All of this is relevant because IPR basically protects the exclusive rights of inventors and creators over discoveries and creations in the fields of art, literature, science, technology, and even trademarks.⁷ That the regulation of Law no. 28 of 2014 concerning Copyright (Copyright Law) and Law no. 13 of 2016 concerning Patents (Patent Law) recognizes that the exclusivity of IPR owners is protected and realized through the existence of moral and economic rights belonging to the subject who created the intellectual work.⁸ Moral rights are rights that cannot be transferred where a Creator or Inventor must be recognized as the entity that created an IPR work, while the Creator or Inventor has economic rights which, based on his wishes, can be transferred or transferred through agreements or statutory regulations. That protecting IPR means upholding these rights, this can be seen from the basic practice of calculating compensation for violations through loss of moral and economic rights, then prevention through criminal sanctions, cooperation between countries, and efforts to protect against violations through technology.⁹ Therefore, the status, development and use of AI needs to consider the concept and protection of moral rights and economic rights as an element of exclusivity protected by intellectual property law.

A study suggests that the way AI works which uses creations as input data to produce music, articles and paintings can open up the potential for copyright infringement because its use is exclusively protected from being duplicated or used for profit (commercial).¹⁰ Another study found that in the IPR protection regime in Indonesia, AI has a unique legal position, including: (1) it cannot be the subject of a patent or creation, (2) it is classified as an object of patent (invention) and not copyright due to its function as a programming that helps

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- 4 Seiko Hidaka, "Updated: Court of Appeal – AI Generated Inventions Denied UK Patent in DABUS Case," *Gowling WLG*, 23 September 2021, <https://gowlingwlg.com/en/insights-resources/articles/2021/updated-ai-invention-denied-patent-in-dabus-case/#Background>, diakses tanggal 3 November 2023, pukul 09.00 WIB.
 - 5 Sandra Kublik dan Shubham Saboo, *GPT-3: Building Innovative NLP products Using Large Language Models* (Sebastopol: O'Reilly Media, 2022), 4-5.
 - 6 Matt G. Southern, "OpenAI's ChatGPT Update Brings Improved Accuracy," *SearchEngineJournal*, 10 Januari 2023, <https://www.searchenginejournal.com/openai-chatgpt-update/476116/>, diakses tanggal 3 November 2023, pukul 09.00 WIB.
 - 7 Freddy Harris, *Akselerasi Transformasi Perlindungan Hak Kekayaan Intelektual Melalui Inovasi* (Jakarta: Badan Pembinaan Hukum Nasional, 2010), 4.
 - 8 "Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta" Lembaran Negara Republik Indonesia tahun 2014 Nomor 266 (2014), art. 74(1); "Undang-Undang Nomor 13 Tahun 2016 tentang Paten" Lembaran Negara Republik Indonesia Tahun 2016 Nomor 176 (2016), art. 4.
 - 9 World Intellectual Property Organization, *Understanding Copyright and Related Rights* (Jenewa: World Intellectual Property Organization, 2016), 24-26.
 - 10 Ari Juliano Gema, "Masalah Penggunaan Ciptaan Sebagai Data Masukan dalam Pengembangan Artificial Intelligence di Indonesia," *Technology and Economics Law Journal* 1, no. 1 (2022): 10-13.

humans do something, and (3) AI creations can get copyright as long as they are involved as supporting tools and are not independent creators of the work, and the work is free from other people's copyright.¹¹ Currently, AI regulations in IPR law still have gaps and face challenges regarding the application of the balance of reasonable interests as a substantive assessment needed to provide limitations on the use of works.¹² Legal reform that can define and reconceptualize copyright is needed as a response to the protection of moral and economic rights in copyright legislation.¹³ Finally, philosophically, AI in the era of singularity has development challenges and its existence is beyond the control and direction of humans, therefore humans as rational logical creatures must be able to defend themselves in the face of advances in AI technology.¹⁴

Previous studies have clearly paid attention to the potential problems and implications of AI in the protection of IPR, especially copyright and patents. Considering the limitations of previous studies, a discussion is raised that examines the relationship between AI, copyright and patents, especially regarding moral rights and economic rights which have implications in the use and development of AI. The discussion will analyze AI as a subject in its role in producing creations and inventions based on known developments using other people's creations, as well as the implications of this for the copyright and patent protection status of AI-generated objects. Several cases, jurisprudence and legal frameworks presented related to the issues discussed are expected to provide an overview of global developments through legal interpretation and construction to deal with the legality of AI in the field of IPR protection, especially copyright and patents.

2. RESEARCH METHODS

This legal study is carried out using normative juridical methods. In Indonesia itself, AI content has not been and is not regulated by IPR legislation. The author uses a conceptual approach to develop concepts through existing legal views, as well as a legislative and comparative approach looking at legal frameworks including overseas precedents to find the background and provide recommendations for reforming IPR law in Indonesia.¹⁵ These approaches are implemented using primary legal materials such as statutory regulations, namely Law Number 28 of 2014 concerning Copyright, Law Number 13 of 2016 concerning Patents, and relevant jurisprudence. Furthermore, secondary legal materials such as literature in the form of articles and books related to this research were also used. Apart from that, non-legal materials are also used, including books, journal articles and related non-legal online articles.¹⁶ Descriptive research will explain AI-related phenomena through current cases, then analyze them evaluatively and comparatively¹⁷ using legal frameworks and existing intellectual property legal protection practices in other countries.

3. DISCUSSION

3.1. AI as a Subject of Copyright and Patents

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) stipulates that IPR protection is given to natural or legal persons who meet the criteria in the convention adopted by

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- 11 Tasya S. Ramli et al, "Artificial Intelligence as Object of Intellectual Property in Indonesian Law," *The Journal of World Intellectual Property* (Early View, 2023): 10-11. <https://doi.org/10.1111/jwip.12264>
 - 12 Jeanette Jade Wangsa, Kalam Fransisca Fortunata, dan Salma Zhafira Hanunisa, "Impact of Artificial Intelligence on Intellectual Property Rights in Indonesia," *Anthology: Inside Intellectual Property Rights* 1, no. 1 (2023): 67 dan 69.
 - 13 Rahmadi Indra Tektona, Nuzulia Kumala Sari, dan Maulana Reyza Alfaris, "Quo Vadis Undang-Undang Hak Cipta di Indonesia: Perbandingan Konsep Ciptaan Artificial Intelligence di Beberapa Negara," *Negara Hukum* 12, no. 2 (2021): 285.
 - 14 Dewi Tresnawati et al, "Artificial Intelligence serta Singularitas Suatu Kekeliruan atau Tantangan," *Jurnal Algoritma* 19, no. 1 (2022): 181 dan 187. <http://dx.doi.org/10.33364/algoritma/v.19-1.1028>
 - 15 Peter Mahmud Marzuki, *Penelitian Hukum* (Jakarta: Prenadamedia Group, 2019), 173 dan 177.
 - 16 Dyah Ochtorina Susanti dan A'an Efendi, *Penelitian Hukum (Legal Research)* (Jakarta: Sinar Grafika, 2014), 49 dan 109.
 - 17 Suteki dan Galang Taufani, *Metodologi Penelitian Hukum (Filsafat, Teori dan Praktik)* (Depok: Rajawali Pers, 2018), 133.

members of the World Trade Organization (WTO).¹⁸ In Indonesia, the subjects in the Copyright Law include creators, both individuals and collectives who produce creations. Creators can become copyright holders or hand them over to other parties who can also legally hand them over to other parties.¹⁹ The provisions of the Patent Law also provide a definition that is similar to the Copyright Law, only there is a difference in mentioning the subject in the patent called the Inventor who produces the Invention.²⁰ That one of the main reasons for efforts to protect IPR is to provide legal certainty regarding the moral and economic rights of creators over their creations.²¹ The definition and purpose of IPR protection for moral rights and economic rights is an important consideration in the argument for AI as the subject of copyright and patents.

Against the motion that AI can be a Creator or Inventor, the concept of a natural person subject in IPR protection is experiencing challenges due to an updated definition and legal interpretation of what constitutes an intellectual property creator. Even though in Indonesia there have been no new cases in the legal realm regarding AI in the field of IPR, several decisions in other countries have tried to answer the concept of AI as Creator and Inventor. In June 2022, Stephen Thaler sued the US Copyright Office (USCO) for refusing to register a work of art with Stability AI as the creator even though the work was entirely a Computer Generated Work (CGW).²² This rejection can be referred to by the jurisprudence of *Naruto vs. Slater* (2018) where Crested Macaques (animals) taking selfies cannot be creators because the context of copyright law only refers to products created by humans.²³

That moral rights are the root of copyright protection belonging to creators shows the existence of a “human” or natural person element as formulated in the Berne Agreement regarding the validity period, transfer of economic rights and their use after the death of the creator.²⁴ This formulation certainly contains elements that show that moral rights in copyright protection are given to humans. This can be seen from the copyright protection for the Creator which is given during and for a limited period of time after the Creator dies. Therefore, the recognition of AI as the Creator is considered a deviation from the spirit of copyright protection which will eliminate moral rights and leave only copyright as an economic value only.²⁵

Philosophically and legally dogmatically, IPR protection is tied to the history of recognition of Human Rights (HR).²⁶ The phrase in the Academic Paper used as a guarantee of copyright protection is “creations which are human intellectual works” in relation to human rights guarantees in the legal framework based on Pancasila, the constitution, and the Universal Declaration of Human Rights (UDHR).²⁷ Furthermore, the Academic Text of the Copyright Law also quotes the opinion of Arpad

18 “Agreement on Trade Related Aspects of Intellectual Property Rights” (1994), art. 1(3).

19 “Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta” Lembaran Negara Republik Indonesia tahun 2014 Nomor 266 (2014), art. 1(2), 1(3), 1(3), 1(27).

20 “Undang-Undang Nomor 13 Tahun 2016 tentang Paten” Lembaran Negara Republik Indonesia Tahun 2016 Nomor 176 (2016), art. 1(2), 1(3), 1(6), 1(13).

21 World Intellectual Property Organization, *WIPO Intellectual Property Handbook* (Jenewa: WIPO Publication, 2008), 3.

22 Congressional Research Service, “Generative Artificial Intelligence and Copyright Law,” *Legal Sidebar*, 11 Mei 2023, 1-2. <https://crsreports.congress.gov/product/pdf/LSB/LSB10922#:~:text=A%20recent%20lawsuit%20has%20challenged,program%20called%20the%20Creativity%20Machine>, diakses tanggal 3 November 2023, pukul 09.02 WIB.

23 *Naruto v. Slater*, No. 16-15469 (9th Cir. 2018), 18.

24 “Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979)”, art. 6.

25 Jane C. Ginsburg, “People Not Machines: Authorship and What It Means in the Berne Convention,” *Institute for Innovation and Competition* 49 (2018): 131-135. <https://doi.org/10.1007/s40319-018-0670-x>

26 Taufik H. Simatupang, “Hak Asasi Manusia dan Perlindungan Kekayaan Intelektual dalam Perspektif Negara Hukum,” *Jurnal HAM* 12, no. 1 (2021): 121. <http://dx.doi.org/10.30641/ham.2021.12.111-122>

27 Abdul Gani Abdullah et al, *Laporan Tim Naskah Akademik Rancangan Undang-Undang tentang Cipta (Perubahan UU No. 19 Tahun 2002)* (Jakarta: Badan Pembinaan Hukum Nasional, 2008), 15.

Bogsch as an IPR expert who states that human genius is the source of all works of art and inventions, and it is the state's duty to protect it to guarantee a decent life for humans.²⁸ The same thing is also stated in the Academic Text of the Patent Law, that Inventor protection is provided to improve the lives and welfare of Inventors, including protecting Inventors' human rights.²⁹ The economic rights and welfare of these rights can only be utilized by living people, namely the human subjects of IPR owners. If AI becomes a subject whose IPR is protected by the copyright and patent regime, there will be a change in the basic philosophy of providing protection for IPR itself.

In *Thaler v. Vidal* in 2022, Stephen Thaler sued again because the registration of the AI-generated invention he patented called DABUS was rejected by the US Patent and Trademark Office (USPTO) on the basis that the definition of Inventor was limited to natural persons so that DABUS could not be considered an Inventor. The Panel of Judges in their decision emphasized that "only a natural person can be an inventor, so AI cannot be", this has set a precedent in the US that AI cannot be the subject of a patent.³⁰ DABUS was also rejected as an Inventor by the UK Intellectual Property Office (UKIPO) in the UK for the same reasons as the USPTO, namely that the Inventor listed was not a human or natural person. The Panel of Judges in their considerations stated that the Inventor in terms of patent registration requirements must be a human being, otherwise an invention resulting from DABUS can be registered if Stephen Thaler registers himself as an Inventor on the basis that he is the owner of DABUS.³¹ In New Zealand, the Judge also stated that if patents were granted to provide incentives for innovation and economic development, it was not clear that making DABUS as Inventor had that effect, apart from that the Judge did not want to rule out the relevance of moral rights, and the expansion of the term "person" could not be done through interpretation, however, is the task of the law makers (parliament).³²

In a contrario in Australia, in the *Thaler v. Commissioner of Patents* in 2021, the judge opined that the laws and regulations do not explicitly stipulate that the Inventor must be a human being.³³ In South Africa, DABUS has been approved by the Companies and Intellectual Property Commission to be an Inventor, this is possible because South Africa does not have substantive examination of patents.³⁴ However, the decision in Australia was overturned at the next level court, the Full Court was of the opinion that regulations and jurisprudence have historically referred to a human being as an Inventor, therefore the court must be careful in constructing legislation in accordance with the objectives of the policy.³⁵ The Full Court finally said that there are many propositions that need to be considered if the definition of Inventor is expanded to include AI, including:

1. The party or subject who is entitled to obtain the rights to a Patent produced by AI. Parties who are deemed to need to be considered to become owners of patent rights for AI-generated inventions are deemed to have at least contributed to enabling the AI program to produce an invention that is granted a patent, including: (a) the inventor of the AI program that produced the invention, (b) the owner the machine on which the AI program is run to produce the Invention, or (c) the party

28 *Ibid.*, 14.

29 BPHN Kemenkumham, *Draft Naskah Akademik RUU tentang Paten* (Jakarta: Badan Pembinaan Hukum Nasional, 2015), 2.

30 *Thaler v. Vidal*, no. 21-2347 (US Court of Appeals for the Federal Circuit 2022), 11.

31 *Thaler v. Comptroller General of Patent Trademarks and Design*, no. A3/2020/1851 (Royal Court of Justice Strand 2021), para. 148.

32 *Thaler v. Commisioner of Patents*, no. CIV-2022-485-118 (New Zealand High Court 2023), para. 32 dan 33.

33 *Thaler v. Commisioner of Patents*, no. VID 108 of 2021 (Federal Court of Australia 2021), para 219 dan 222.

34 IPWatchdog, "DABUS Gets Its First Patent in South Afrika Under Formalities Examination," *IPWatchdog*, 29 Juli 2021, <https://ipwatchdog.com/2021/07/29/dabus-gets-first-patent-south-africa-formalities-examination/id=136116/> dan <https://ipwatchdog.com/wp-content/uploads/2021/07/AP7471ZA00-Notice-of-Acceptance-1.pdf>, diakses tanggal 3 November 2023, pukul 09.02 WIB.

35 *Commisioner of Patents v. Thaler*, no. VID 496 of 2021 (Federal Court of Australia – Full Court 2022), para. 116 dan 120.

- that enters data into the program so that the program can produce the invention.
2. Standards for inventive steps as one of the qualifications for granting a patent need to be taken into account again when AI becomes an Inventor. This is because the inventive step is based on an invention that has properties or uses that were not foreseeable (non-obvious) by people skilled in the field at the time it was registered. Considering AI as an Inventor has consequences for the development of standards for inventive steps that should take into account the expansion of AI as a subject that is also considered to have expertise. If this is not possible due to massive complexity or differences, then new ideas need to be considered to recalculate the standards for inventive steps.
 3. The role of the Inventor's responsibility for the Patent he creates is part of the legal consequences of creating a registered Invention. That thing that needs to be considered when giving the title of Inventor to an AI is the capacity for responsibility for misrepresentations or misrepresentations regarding patents, where an AI as a machine does not have the capacity to be responsible for this.

Table 1. Decisions from other countries regarding AI as a subject of copyright and patents

Country	Case	Year
United Kingdom	<i>Thaler v. Comptroller General of Patent Trademarks and Design</i>	2021
Australia	<i>Thaler v. Commisioner of Patents</i>	2021
	<i>Commisioner of Patents v. Thaler</i>	2022
United States of America	<i>Thaler v. Vidal</i>	2022
New Zealand	<i>Thaler v. Commisioner of Patents</i>	2023

P. Goldstein and P. B Hugenholtz say that moral rights are more deeply rooted and strictly protected by countries that adhere to civil law compared to common law countries.³⁶ That A. Chapman said that a work cannot be assessed only based on economic value, but moral rights as the author's rights are also respected.³⁷ This is what seems to make common law countries continue to make moral rights an important basic value for seeing the idea that AI can become a Creator or Inventor.

3.2. Intellectual Property Rights Used as AI Input or Dataset

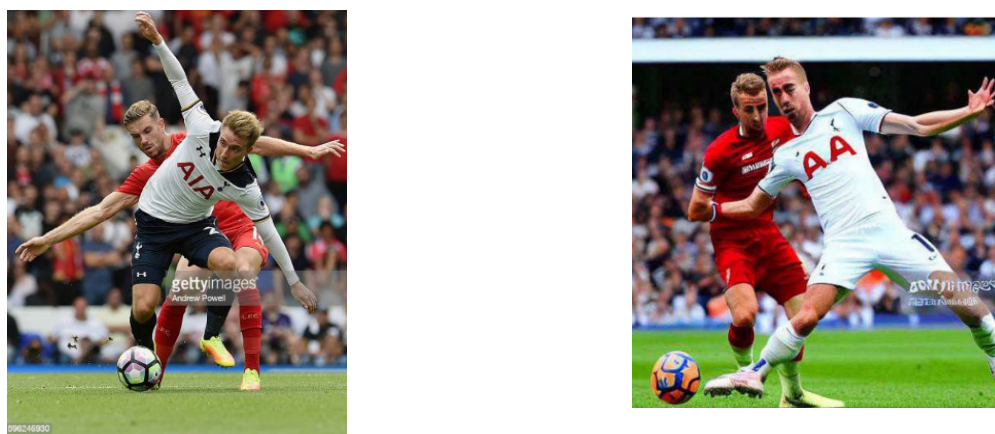
Copyright protection generally covers works of literature, music, art, photographs, cinematography and programs, and in some countries applied arts and choreography are also protected by the copyright regime.³⁸ The distribution of copyrighted products and works has been widely popularized via the internet as a form of development in the copyright era so that data is publicly available and easily accessible to consumers.³⁹ This public availability and access is also used by AI as a dataset which is input into a generative AI program which will then produce new work. Using part of someone else's work is something that is recognized by copyright as a process in creating a new creation, however, in its use copyright places restrictions on the amount of substance or part that is borrowed. A creation must add a value or substance that should be able to make it a work that fully emphasizes the distinguishing characteristics of the creation from which it is borrowed.⁴⁰

Greg Rutkowski, a Polish national, is one of the digital artists whose illustration works are greatly impacted by generative AI called Stable Diffusion, this is because many users type instructions

36 Paul Goldstein dan P. Bern Hugenholtz, *International Copyright* (Oxford: University Press, 2019), 6
37 R. Diah Imaningrum Susanti, *Hak Cipta: Kajian Filosofis dan Historis* (Malang: Setara Press, 2017), 38 dan 39
38 World Intellectual Property Organization, *Op. Cit.*, 42-43.
39 Yusran Isnaini, *Hak Cipta dan Tantangannya di Era Cyber Space* (Jakarta: Ghalia Indonesia, 2009), 3-4.
40 Paul Goldstein, *Hak Cipta: Dahulu, Kini dan Esok* (Jakarta: Yayasan Obor, 1996): 6.

(prompts) to produce images in the style of the digital artist's illustrations.⁴¹ Rutkowski in an interview expressed his surprise and concern for the future of artists, when people can easily create and claim their illustration-style work by typing their name into a generative AI prompt, then the AI uses their works as a dataset.⁴² Stability AI as an artificial intelligence program development company, Stable Diffusion, is facing a class action lawsuit (Andersen et al v. Stability AI Ltd et al) in the United States. Apart from that, Getty Images is also suing Stability AI in England and the United States, asking Stable AI to stop selling its AI system.⁴³

Figure 1. Photo from the Getty Images site (Right) and Photo from Stability AI Outcomes (Left)



Source: Lawsuit on Getty Images, v. Stability AI, page 18. https://copyrightlately.com/pdfviewer/getty-images-v-stability-ai-complaint/?auto_viewer=true#page=&zoom=auto&pagemode=none, accessed on October 3 2023, at 09.02 am.

From the two photos of the football game, it can be seen that the original version of the GettyImages.com site has a clear watermark to protect the work from unauthorized use. On the left side of the Stability AI Outcomes a faint watermark belonging to GettyImages.com is visible, indicating that the AI used photos from the GettyImages site without paying as a dataset to train its program. Watermarking is used as a method that can help identify copyright by providing a label/stamp on audiovisual works.⁴⁴ GettyImages in its lawsuit stated that the visual assets on its site are equipped with watermarking to prevent copyright and metadata infringement which is part of Copyright Management Information (CMI).⁴⁵ Apart from that, in a different lawsuit against Stability AI, Andersen et al cited CMI according to the Digital Millennium Copyright Act (DMCA), including: (1) copyright notices, (2) title and other information that identifies the work, (3) name and other information regarding the Author,

- 41 Melissa Heikkila, "This Artist is Dominating AI-Generated Art and He's Not Happy About It," *MIT Technology Review*, 16 September 2022. <https://www.technologyreview.com/2022/09/16/1059598/this-artist-is-dominating-ai-generated-art-and-hes-not-happy-about-it/>, diakses tanggal 3 November 2023, pukul 09.03 WIB.
- 42 Ian Dean, "'It's Terrifying' – Greg Rutkowski is the Most Prompted Artist on Stable Diffusion," *Creative Bloq*, 31 Mei 2023. <https://www.creativebloq.com/features/greg-rutkowski-ai-art-prompts>, diakses tanggal 3 November 2023, pukul 09.03 WIB.
- 43 Sam Tobin, "Getty Ask London Court to Stop UK Sales of Stability AI System," *Reuters*, 2 Juni 2023. <https://www.reuters.com/technology/getty-asks-london-court-stop-uk-sales-stability-ai-system-2023-06-01/>, diakses tanggal 3 November 2023, pukul 09.03 WIB.
- 44 Khwarizmi Maulana Simatupang, "Tinjauan Yuridis Perlindungan Hak Cipta dalam Ranah Digital," *Jurnal Ilmiah Kebijakan Hukum* 15, no. 1 (2021): 74. <http://dx.doi.org/10.30641/kebijakan.2021.V15.67-80>.
- 45 "Surat Gugatan *GettyImages v. Stability AI*," para. 4 dan 75.

and (4) name and other information regarding the copyright holder of the work.⁴⁶ The DMCA prohibits the removal, alteration, and improper provision of CMI, where based on Figure 1 it can be suspected that Stability AI has committed such violations to facilitate unauthorized use of copyright. In Indonesia, CMI is also regulated with provisions similar to the DMCA in Article 7 of the Copyright Law as a protection for the moral rights of creators.

It was explained that through the data scraping process, a German company sponsored by Stability AI called LAION obtained billions of content including the GettyImages site to be used as a dataset for training Stable Diffusion.⁴⁷ Andersen et al in their lawsuit stated that apart from StabilityAI, they also sued DeviantArt and Midjourney for using copyright protected content without licensing, negotiating or sharing profits with creators through AI programs such as what Stability AI did.⁴⁸ LAION runs its business on a non-profit basis and opens access to datasets publicly, however LAION receives donations and payments from Stability AI to produce datasets for Stable Diffusion.⁴⁹ That AI programs from Stability AI (DreamStudio), DeviantArt (DreamUp), and Midjourney gain profits through a generative AI service sales system using a point system or monthly subscription.⁵⁰ This could potentially violate the economic rights of the creator through commercial use of the work without permission. Article 55 paragraph (1) of the Copyright Law states that even though services via information and communication technology are provided free of charge, if other parties obtain profits from the use of the work, it is considered to be used commercially. Even though LAION does not benefit directly because it is a non-profit and open-source company, LAION receives donations and payments from Stability AI, apart from that, the three AI developers also use it with a paid scheme, so of course this is a form of commercialization.

That the argument to justify the use of a dataset containing many protected works is the copyright doctrine in the United States called fair use which allows the use of other people's works for transformative uses.⁵¹ This doctrine places limitations on exclusive rights for uses such as criticism, comments, reporting news, teaching, education, research, as well as considering whether the purpose of using the work is for non-profit commercial or educational purposes, the nature of the work, the portion and substantiality of the use of the work as a whole, the effects from its use to the market value of the creation.⁵² Data scrapping processes such as text and data mining (TDM) according to the fair use doctrine are permitted in several situations, including: (1) Authors Guild v. Google (2015) found that Google did not violate fair use when it provided book texts on a limited basis so as not to replace the market for original works, and encouraged transformative results (2) Authors Guild v. HathiTrust in 2014 found that creating a database of works to be provided in a form that is accessible to people with disabilities is fair use.⁵³ Whereas in its decision, the court in the United States also considered that Google was run commercially, but this did not hinder the ability to use fair use. In the United States, fair use has a flexible nature when looking at the rules and factors considered in legislation, apart from that, violations look at fair use case by case.

In contrast to Indonesia, fair use, things like song covers in the context of the fair use doctrine, cannot be commercial and the creator must benefit and not object, apart from that, fair use must not

46 "Digital Millenium Copyright Act 1998" Public Law 105-304, sect. 1202(c).

47 "Surat Gugatan *GettyImages v. Stability AI*," para 36-44.

48 "Surat Gugatan *Andersen et al v. Stability AI et al*," para. 130 dan 152.

49 *Ibid.*, para. 107.

50 *Ibid.*, para. 56, 60, 115, 137.

51 James Vincent, "The Scary Truth About AI Copyright is Nobody Knows What What Will Happen Next," *The Verge*, 15 November 2022, <https://www.theverge.com/23444685/generative-ai-copyright-infringement-legal-fair-use-training-data>, diakses tanggal 3 November 2023, pukul 09.03 WIB.

52 "Title 17 of the United States Code," sect. 107.

53 Daniel J. Gervais, "AI Derivatives: The Application to the Derivative Work Right to Literary and Artistic Productions of AI Machines," *Seton Hall Law Review* 53 (2022): 28; *Authors Guild v. Google*, no 13-4829 (2d Cir. 2015), 46; *Authors Guild v. HathiTrust*, no. 12-4547 (2d Cir. 2014), 34.

harm the reasonable interests of the creator.⁵⁴ If we look at the fair use doctrine in Indonesia and the United States from the perspective of the Rutkowski case, even though copyright does not protect the intangible ideas or unique style of the creator, the impact of using the work as a dataset can potentially be detrimental to the creator. By training a dataset containing Rutkowski's illustrations to produce works in the style he created, it is possible that original works and AI-created works will compete for the same market for consumer demand for a particular artist's style. This opinion certainly needs to take into account that in fact, with no protection for an artist's style, in practice someone can ask another artist to draw in another artist's style without violating his or her copyright.

If the creation of a Creator in the Copyright Law is considered unique and personal, then the uniqueness of the work produced by AI becomes questionable when other works are used by AI as a basis for imitating the uniqueness of a Creator. An argument that should be taken into account is the extent to which the cognitive process of human artists to imitate and be inspired can be included in the same corridor as the training process that generative AI goes through. A study of artists' imitation, inspiration and creation in drawing found that looking at and imitating an image facilitates the artist's creativity in creating new (novel) works that are qualitatively different from the original drawing.⁵⁵ The Academic Text of the Copyright Law states that creations must be unique and personal in nature, this shows that the creation is an original result of ability, creativity, expertise, so that it then becomes tangible, both audio and visual.⁵⁶ Therefore, basically IPR protection is given because creations have uniqueness and new value through cognitive processes such as imitation, inspiration and creation so as to produce a unique and valuable creation. On the other hand, AI as a machine that has "intelligence" is not considered equal to humans in acting and processing cognitively in producing work. The complications of this problem not only need to be answered legally through regulations, to stick to the history and philosophical basis of copyright protection, this problem needs to be seen through an in-depth study of the interaction of creation with AI and humans, as well as the dynamics in copyright protection.

Apart from fair use, several countries have tried to include regulations regarding the use of copyright protected data in their laws and regulations. In the European Union, regulations state that the legality of TDM includes: (1) for the purposes of scientific studies by research institutions and cultural heritage institutions, (2) there are no restrictions on categories of users, but IPR owners must be able to choose not to use their work, and (3) There is widespread recognition that TDM can provide benefits for research in a particular community and thus support innovation.⁵⁷ Furthermore, the European Union has drafted AI regulations that require generative AI developers and service providers to transparently disclose information regarding datasets used in the development of their products for the benefit of copyright protection in the works contained therein.⁵⁸ This means opening up opportunities for creators so that their creations are not used in datasets that develop generative AI. In Japan, amendments to the copyright regime introduced TDM regulations, including: (1) allowing the use of works for machine learning, where AI users do not see the work being used so as not to harm the creator, (2) allowing incidental duplication of works for machine learning without harm the copyright owner, (3) allows the use of the work for data verification for research purposes, considering the use of data that is important

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- 54 Fatimah Nurul Aini dan Indirani Wauran, "Pemenuhan Prinsip Fair Use dalam Cover Lagu Berdasarkan Hukum Hak Cipta Indonesia," *Jurnal Ilmiah Kebijakan Hukum* 15, no. 1 (2021): 130. <http://dx.doi.org/10.30641/kebijakan.2021.V15.111-132>; Rika Ratna Pratama et al, "Regulasi Doktrin Fair Use Terhadap Pemanfaatan Hak Cipta Pada Platform Digital Semasa dan/atau Pasca Pandemi Covid-19," *Dialogia Iuridica: Jurnal Hukum Bisnis dan Investasi* 13, no. 1 (2021): 146. <https://doi.org/10.28932/di.v13i1.3750>
- 55 Takeshi Okada dan Kentaro Ishibashi, "Imitation, Inspiration, and Creation: Cognitive Process of Creative Drawing by Copying Other' Artworks," *Cognitive Science: A Multidisciplinary Journal* 41 (2017): 1804. <https://doi.org/10.1111/cogs.12442>
- 56 Abdul Gani Abdullah et al, *Op. Cit.*, 22.
- 57 Daniel J. Gervais, *Op. Cit.*, 28
- 58 "Artificial Intelligence Act," European Parliament (2023), 28b(4)(c).

to the researcher and does not harm the copyright owner, meaning allowing TDM for a database that can be searched for data verification purposes.⁵⁹ That Japan does not limit whether TDM is used for profit or non-profit, only excludes reproduction and retrieval of content from illegal sites.⁶⁰ Professor of IPR at Waseda University said that AI regulations in Japan consider a balance between free use and protection of datasets used for development and training machine learning to encourage their use.⁶¹ From these two countries, it appears that there is a pattern of legalizing the use of datasets as AI input which has reasons and aims to provide incentives that encourage the development of innovation and technology, especially in the fields of machine learning and AI.

Andersen et al cited 2 (two) incidents where works resulting from the Midjourney AI program in the form of works of art and comics were used to compete and have their copyright registered, then on another occasion David Holz as the founder of Midjourney stated that it was impossible to know the origin of the hundreds of millions of images used in training AI, even though the LAION dataset is in the form of a list of millions of Uniform Resource Locators (URLs) whose origins can be traced.⁶² That the attributes in the image-text pair in a dataset include metadata which includes the image identification tag and the URL of the image.⁶³ However, even if the origin of the contents of a dataset is known, it is practically impossible to license all IPRs on the data used to train an AI program.⁶⁴ Likewise, referring to the Rutkowski case, it will be difficult for the creator to maintain the moral right to prevent his creation from being distorted, mutilated and modified by Stable Diffusion into a new work that resembles his creation.⁶⁵ Consider the study of H. Soelistyo (2022) which found that enforcement of moral rights in the national Copyright Law does not provide sanctions for violations, even though maintaining the existence of moral rights, such as paternity rights, is becoming increasingly relevant in the digital era.⁶⁶ Therefore, copyright protection for works used as datasets not only concerns the difficulty of implementing economic rights through licensing, but also moral rights and challenges to their existence in cyberspace.

The birth of copyright does not require registration, so works will be protected automatically when they are created through the declarative principle.⁶⁷ This principle can be supported by publication and announcement of works.⁶⁸ Then, this principle is also called the negative declarative principle because both those who register the work and those who do not can have copyright as long as it is

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- 59 Rofi Aulia Rahman, Akhmad Al-Farouqi, dan Shu-Mei Tang, "Should Indonesian Copyright Law be Amended Due to Artificial Intelligence Development? Lesson Learned from Japan," *NTUT Journal of Intellectual Property Law and Management* 9, no. 1 (2020): 51.
- 60 Jose Antonio Lanz, "AI Art Wars: Japan Says AI Model Training Doesn't Violate Copyright," *Decrypt*, 6 Juni 2023, <https://decrypt.co/143461/ai-art-wars-japan-says-ai-model-training-doesnt-violate-copyright>, diakses tanggal 3 November 2023, pukul 09.07 WIB.
- 61 Tatsuhiro Ueno, "Copyright Issues on Artificial Intelligence and Machine Learning" (dipresentasikan di The First International Workshop on Sharing and Reuse of AI Work Products Melbourne, Australia, 19 Agustus 2017), <http://www.f.waseda.jp/uenot/Copyright-AI-IJCAI2017.pdf>, diakses tanggal 3 November 2023, pukul 09.07 WIB.
- 62 "Surat Gugatan *Andersen et al v. Stability AI et al.*," para. 142, 143, 150.
- 63 Christoph Schuhmann et al, "LAION-5B: An Open Large-Scale Dataset for Training Next Generation Image-Text Models," *36th Conference on Neural Information Processing Systems (NeurIPS 2022) Track on Datasets and Benchmarks* (18 November – 9 Desember 2022): 6. <https://doi.org/10.48550/arXiv.2210.08402>
- 64 Ernest Lim, "B2B Artificial Intelligence Transactions: A Framework for Assessing Commercial Liability," *Singapore Journal of Legal Studies* (Maret 2022): 59.
- 65 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta" Lembaran Negara Republik Indonesia tahun 2014 Nomor 266 (2014), art 5(e).
- 66 Henry Soelistyo, "Distorsi Hak Moral dalam Orbit Digital," *Technology and Economics Law* 1, no. 2 (2022): 107.
- 67 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta" Lembaran Negara Republik Indonesia tahun 2014 Nomor 266 (2014), art 1(1).
- 68 Karuniawan Nurahmansyah, "Pertimbangan Kewajiban Prinsip Deklaratif Pada Hak Cipta Fotografi Jurnalistik Melalui Media Internet," *Jurnal Rechts* 8, no. 1 (2019): 34. <https://doi.org/10.36835/rechts.v8i1.485>

not proven otherwise so that there is no responsibility from the Ministry of Law and Human Rights regarding the validity of the claim through substantive examination.⁶⁹ This is what makes the difference between AI input problems in copyright and patents, because substantive examination in patents can check the fulfillment of new patent requirements and have an inventive step, as well as see comparisons in similar patents.⁷⁰ That when a substantive examination has found that the registered invention meets the requirements of statutory regulations, this is sufficient to provide patent protection. The construction of the understanding of development through compulsory licensing in Article 85 of the Copyright Law only accommodates the interests of education, science, and research and development, while Article 82 paragraph (1) letter c of the Patent Law allows for compulsory licensing on the grounds that patents which constitute development cannot be carried out because they utilize patents. Others are still protected. Due to the different framework and construction of IPR protection, potential problems arising from the use of other people's IPR as a dataset do not have the same problems between copyright and patent regimes.

Then, generative AI technology to produce works within the copyright regime is fundamentally different from AI which aims to produce inventions such as DABUS. Stephen Thaler created DABUS based on Artificial Neural Networks (ANN) technology which simulates neurons in a biological brain to create a new idea for an invention.⁷¹ This is different from Generative AI such as LLM in GPT which creates new data that is similar to the input dataset such as images and text. E. K Carlson's study describes the DABUS work process in a parable. Without instructions from the inventor, DABUS, which has knowledge of human anatomy and material properties, will be able to realize (revelation) what kind of brush to clean teeth and what kind of toothbrush handle is easy to use.⁷² Due to the differences in how AI technology works in the fields of copyright and patents, the potential for infringement in the field of patents is smaller, except in cases where the patent contains the substance of someone else's copyright.

3.3. Creations and Inventions from AI Outcomes as Objects of Copyright and Patents

Starting from the perspective of AI as a subject, as well as the problem of datasets as AI input, ultimately this relates to the protection of objects in the copyright and patent regime, namely creations and inventions. If previously it was discussed in the first and second parts regarding AI which cannot be a Creator and Inventor, and is only trained based on datasets that are protected by copyright, in the third discussion we will explain the protection of AI-generated creations and inventions. Considering in *Thaler v. Comptroller General of Patent Trademarks and Design*, the court stated that inventions resulting from DABUS artificial intelligence could be granted a patent if they were registered in the name of DABUS Inventor, namely Stephen Thaler.

USCO states that AI Outcomes, whether text, visual or audio, cannot be protected by copyright because there is no creative contribution from humans in them, for example when a graphic novel is written by humans and provided with illustrations resulting from generative AI then the copyright can only be granted to the writing and not to the image.⁷³ The USCO gives an example if someone enters an instruction (prompt) to AI to compose a poem about copyright law in the style of William

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- 69 Schwars F. S. Liuw, Vecky Y. Gosal, dan Butje Tampi, "Tinjauan Hukum Pengaturan Hak Cipta Sebagai Objek Jaminan Fidusia Menurut Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta," *Lex Privatum* 8, no. 4 (2020): 81-82.
- 70 "Undang-Undang Republik Indonesia Nomor 13 Tahun 2016 tentang Paten" Lembaran Negara Republik Indonesia Tahun 2016 Nomor 176 (2016), art. 5(3) dan 48(2)(a)
- 71 Pheh Hoon Lim dan Phoebe Li, "Artificial Intelligence and Inventorship: Patently Much Ado in the Computer Program," *Journal of Intellectual Property Law & Practice* 17, no. 4 (2022): 377. <https://doi.org/10.1093/jiplp/jpac019>
- 72 Erika K. Carlson, "Artificial Intelligence Can Invent but Not Patent – For Now," *Engineering* 6, issue 11 (2020): 1213. <https://doi.org/10.1016/j.eng.2020.09.003>
- 73 Copyright Office, "Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence," *Federal Register* 88, no. 51 (2023): 16191

Shakespeare, even though the results are appropriate, it is a machine, not a human, that determines the rhyme, lines and structure of the writing as well as expressive elements.⁷⁴ If it has previously been found that AI cannot be a Creator, it seems that a result completely created by AI is also not an object that is intended to be protected as a creation in the copyright regime. However, USCO also says that if the AI result has received intervention from a human creator, such as modifying it or arranging it in such a way that it turns into an original human creation, the contribution of this human creator also needs to be explained at the time of copyright registration.⁷⁵ Human contributions in AI treat it as a tool, for example the character Stelfie which was created by an anonymous AI Artist by compiling, narrating, and continuously modifying the AI Outcomes to produce the photo of the Stelfie character he wanted, even using a photo of his own hand to replace parts of the AI Outcomes that were less suitable.⁷⁶

In China, the Shenzhen Tencent v. Shanghai Yingxun in 2019 found that there is a difference between being created completely (autonomously) and assisted (assisted) by AI, that written articles that are said to be “created” by Dreamwriter receive intellectual contributions from the creative team which includes, among other things, input data, trigger condition settings, format, and corpus style which has a direct influence on the articles produced.⁷⁷ That human contributions to the final result of a creation assisted by AI can be granted copyright, while something that is solely created entirely by a program cannot be protected by copyright, as Y. Benkler said, “free for public use like air”.⁷⁸ In a contrario, UK legislation states that literature, drama, music or works of art resulting from Computer Generated Works (CGW) are granted copyright to the person who arranges such a creation.⁷⁹ In the UK copyright perspective, CGW results will be given ownership of the owner of the program or algorithm, without any moral rights and protection for only 50 (fifty) years.⁸⁰ The legalization of AI Outcomes in the copyright protection regime also seems to be Japan’s strategy in regulating restrictions on AI generated works only to creations that provide significant economic value, as well as AI inventions that reflect novelty and inventive steps.⁸¹ On the other hand, Ukraine plans sui generis as an IPR belonging to creators of AI programs that protects non-original AI-generated creations, as well as considering substantial investment in these creations.⁸²

That the problems in the field as reflected in the DABUS case seem to focus more on AI not being able to become an Inventor, because economic rights are not useful for a program. Like copyright, inventions bearing the name of the inventor are part of moral rights.⁸³ If the Patent Law defines an Invention as an Inventor’s idea, where the Inventor must be a human, this simply prevents patent applications for AI-generated Inventions. However, basically the patent system in Indonesia adheres to the first to file principle, where the first registrant becomes the Inventor who holds the economic and

74 *Ibid.*, 16192.

75 *Ibid.*, 1693.

76 Phil Edwards, “An AI Artist Explains His Workflow,” *Vox*, 2 Mei 2023, <https://youtu.be/K0ldxCh3cnI>, diakses tanggal 3 November 2023, pukul 09.10 WIB.

77 Zhou Bo, “Artificial Intelligence and Copyright Protection Judicial Practice In Chinese Courts,” *WIPO*, 2 https://www.wipo.int/export/sites/www/about-ip/en/artificial_intelligence/conversation_ip_ai/pdf/ms_china_1_en.pdf, diakses tanggal 3 November 2023, pukul 09.10 WIB.

78 Mauritz Kop, “AI & Intellectual Property: Towards an Articulated Public Domain,” *Texas Intellectual Property Law Journal* 28, no. 297 (2020): 303.

79 “Copyright, Designs, and Patent Act 1998,” sect. 9(3).

80 Mauritz Kop, *Op. Cit.*, 304.

81 Intellectual Property Strategy Headquarters, “Intellectual Property Strategic Program 2016,” May 2016, 11, https://www.kantei.go.jp/jp/singi/titeki2/kettei/chizaikeikaku20160509_e.pdf, diakses tanggal 3 November 2023, pukul 09.12 WIB.

82 Liubov Maidanyk, “Artificial Intelligence and Sui Generis Rights: A Perspective for Copyright in Ukraine,” *Access to Justice in Eastern Europe* 3, no. 11 (2021): 151-152. 10.33327/AJEE-18-4.3-n000076

83 “Undang-Undang Nomor 13 Tahun 2016 tentang Paten” Lembaran Negara Republik Indonesia Tahun 2016 Nomor 176 (2016), penjelasan art. 12(6).

moral rights to the registered patent, only there is recognition of previous users who have previously used the Invention.⁸⁴ Therefore, there is actually no obstacle for AI program owners to register their inventions with themselves as inventors in Indonesia then enjoy their economic and moral rights, because as long as the Invention meets the requirements, there is no requirement that the Invention was actually originally invented by the Inventor who registered it.

In contrast to the United States, the USPTO sees that national jurisprudence has stated that inventors must contribute to the design of inventions.⁸⁵ This can be seen through the use of AI to help someone find permitted inventions as has happened in many pharmaceutical companies in the United States.⁸⁶ The Full Court in Australia in its decision against DABUS also said that Thaler did not have the rights to the invention resulting from his AI program because DABUS invented the invention, but on the other hand, an inventor must be a human as referred to on the subject of patent regulations.⁸⁷ With a different legal framework, the Royal High Court in England in its decision stated that Thaler could actually obtain the rights to the patent produced by DABUS as his invention, as the High Court said that generally fruit that falls from a tree that someone owns will become his property.⁸⁸ This view is also seen by the courts in New Zealand as an option available to grant a patent for the DABUS Invention.⁸⁹ Therefore, the view so far considers that an Inventor can obtain a patent for an Invention produced by his patent (AI), or that there is no right in it because it was not actually a human being who created it.

In a joint study with UKIPO, it was stated that if AI inventions cannot be patented because they are not the result of human thought, there is no indication that this will hinder investment and development of AI technology.⁹⁰ However, R. Abbot said that patent protection for AI-generated inventions would encourage inventive AI technological innovation. Apart from that, he said that allowing a human to register as an Inventor of AI-generated Inventions was not a problem for AI, but this would degrade the value and the honor of an Inventor title.⁹¹ The relationship between intellectual property as an object of legal protection can be drawn from 2 (two) theories of John Locke and Frederick Hegel. When human Inventors are equalized with AI Inventors, the question will arise of how valuable an Inventor's award is if it can be solely on a machine or program. Hegel argued that an ownership right is obtained from the results of self-expression which is closely related to ethics and morals.⁹² There is a clash between the moral rights that humans obtain for their identity as free and intellectually thinking creatures when recognizing AI as equal to humans. On the other hand, the economic benefits of AI-generated inventions are also deemed inappropriate for parties who did not create the invention. Locke stated that ownership and the amount of rights are obtained from the business carried out, where this must not harm the

84 *Ibid.*, art. 14.

85 The United States Patent and Trademark Office, "2109 Inventorship [R-07.2022]," *USPTO*, <https://www.uspto.gov/web/offices/pac/mpep/s2109.html#:~:text=The%20definition%20for%20inventorship%20can,he%20is%20not%20an%20inventor.%20%E2%80%A6>

86 Douglas R. Nemec dan Laura M. Rann, "AI and Patent Law: Balancing Innovation and Inventorship," *Skadden Insights*, April 2023, <https://www.skadden.com/insights/publications/2023/04/quarterly-insights/ai-and-patent-law>, diakses tanggal 3 November 2023, pukul 09.12 WIB.

87 *Commissioner of Patents v. Thaler*, no. VID 496 of 2021 (Federal Court of Australia – Full Court 2022), para. 113.

88 *Thaler v. Comptroller General of Patent Trademarks and Design*, no. A3/2020/1851 (Royal Court of Justice Strand 2021), para. 23 dan 148.

89 *Thaler v. Commissioner of Patents*, no. CIV-2022-485-118 (New Zealand High Court 2023), para. 32

90 Martin Kretschmer, Bartolomeo Meletti, dan Luis H. Porangaba, "Artificial Intelligence and Intellectual Property: Copyright and Patents – a Response by the CREATE Centre to the UK Intellectual Property Office's Open Consultation," *Journal of Intellectual Property Law & Practice* 17, no. 3 (2022): 326. <https://doi.org/10.1093/jiplp/jpac013>

91 Ryan Abbott, "The Artificial Inventor Project," *WIPO Magazine*, Desember 2019, https://www.wipo.int/wipo_magazine/en/2019/06/article_0002.html, diakses tanggal 3 November 2023, pukul 09.15 WIB.

92 Khoirul Hidayah, *Hukum Hak Kekayaan Intelektual* (Malang: Setara Press, 2017), 10.

rights of other parties.⁹³ Considering the role of humans when the AI that produces the product does not provide direct effort to the related work, then philosophically ownership and profits will not arise in the work produced by the AI. Stephen Thaler also feels that it is incorrect to name an invention discovered by DABUS after another party.⁹⁴ Protection of AI-generated inventions in patents is not as easy as giving a human actor the position of Inventor and the problem will simply be resolved, the moral rights of an Inventor as someone who actually invented the Invention is something that must be protected. A balance is needed between the benefits of the economic rights of inventions which are entirely the result of AI and the moral rights which are the human element in IPR protection.

4. CONCLUSION

This research found that the practice of court decisions and legal construction in countries does not allow AI to become a Creator or Inventor. This is motivated by the problem of moral rights inherent in IPR protection as human rights, as well as the problem of AI's ability to implement and utilize economic rights within the copyright and patent protection regime.

Apart from that, the use of datasets containing protected works in text, audio and visual form has invited a lot of debate and even lawsuits in court due to the use of economic rights, as well as recognition of the creator as the holder of the moral rights of works used as datasets by generative AI. In practice, there are countries that regulate exceptions and limits on the protection of works, such as in Japan and the European Union, then there are also countries such as Indonesia and the United States which rely on the fair use doctrine as a flexible regulation, both of which consider limitations and impacts of using creations in datasets to train AI. Eventually, because the legal construction of copyright and patents refers to humans, creations that are entirely the result of generative AI cannot be protected, except where the law regulates them such as the CGW regime in the UK.

AI creations can be protected as long as they have human contribution to intervene which has a direct impact on the AI creation or change and arrange the AI creation in such a way as to form a different work. On the other hand, the protection of AI-generated inventions in the field of patents looks at the perspective that AI-generated inventions are products owned by the AI owner (Inventor). However, it is feared that this will violate the moral rights rules of the Inventor who is the inventor of the Invention and contributed to the realization of the Invention so that the AI owner should not be able to claim that the Invention which is entirely the result of AI is his. Therefore, the debate on creation and artificial intelligence results is colored by considerations of moral rights and economic rights contained in copyright and patent protection.

It needs to be realized that AI not only brings challenges but also brings benefits for the progress of humanity. It would be better if the Indonesian government and DPR also prepare to formulate laws that can accommodate moral rights, economic rights, and provide incentives for AI innovation. The author sees that AI challenges must be answered by state action and global cooperation considering the global context of the challenge. To support this, the author suggests that more studies be carried out in the field of AI regulation, where in particular the author feels that this is still very lacking in the field of patents resulting from AI inventions.

93 *Ibid.*, 9-10.

94 Ric Stevens, "Artificial Intelligence: You Have to be a Real Person to be an Inventor, Court Rules," *New Zealand Herald*, 21 Maret 2023, <https://www.nzherald.co.nz/nz/artificial-intelligence-you-have-to-be-a-real-person-to-be-an-inventor-court-rules/Y7QCZC4WCZDULNAZM3EJ2OPVFQ/>, diakses tanggal 3 November 2023, pukul 09.15 WIB.

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