Legal Analysis of Artificial Intelligence Responsibility in Copyright Infringement in the Digital Era

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Abstract: In the digital era, artificial intelligence is increasingly developed and can be used to create works that require copyright protection. However, there is still debate regarding the responsibility of artificial intelligence in copyright infringement, whether it should be borne by the creator of the artificial intelligence, the user of the artificial intelligence, or other parties involved in the use of artificial intelligence. This research uses a normative juridical approach with an analysis of regulations related to copyright and artificial intelligence. The data used is secondary data in the form of literature, regulations, and court decisions related to copyright infringement cases involving artificial intelligence. The results of the study indicate that the responsibility of artificial intelligence in copyright infringement needs to be clearly regulated in the applicable regulations in Indonesia. The creators and users of artificial intelligence must be responsible in using artificial intelligence and comply with applicable copyright rules.

Keywords: Artificial Intelligence, Copyright, Responsibility

1. Introduction

In the current digital and Internet of Things (IoT) era, where all data can be digitized and accessed from anywhere, even in real-time, the development of artificial intelligence has become very rapid all over the world (Savitri, 2021).[1] In this era of rapidly advancing technology, there are both positive and negative impacts that affect human life (Yudoprakoso, 2019).[2] The role of technology is very important in simplifying human work and activities, especially in situations where the work is too difficult to do manually. Technology helps to provide convenience in this regard. (Disemadi, 2021).[3] The rapid development of technology provides many benefits and positive impacts for humans, especially in completing complex tasks. Examples of this are blockchain, internet of things (IoT), big data, and artificial intelligence (AI) which can all provide ease in various human activities. (Amboro & Komarhana, 2021).[4] Artificial Intelligence (AI) or artificial intelligence refers to technology or systems created by humans to mimic human activities and have a similar thought framework to humans in carrying out a task. (Fahrudin, 2018).[5]

The development of Artificial Intelligence (AI) technology has brought significant changes in various aspects of human life, leading many companies in various industries to choose to use this technology for its various benefits. There are three main benefits that are the reasons why companies choose to use Artificial Intelligence technology compared to other technologies. Firstly, this technology is capable of working with high accuracy due to the learning process from diverse data. Secondly, this technology can help automate high-paced

jobs, allowing machines to work consistently. Lastly, data processing using Artificial Intelligence technology requires less time.

The use of artificial intelligence technology in the creative industry can raise legal issues related to copyright protection. Although this technology allows creative industry players to produce works more quickly and efficiently, it can also threaten the originality and copyright of the works. Currently, there are no specific legal rules governing the protection, regulation, and infringement of copyrights generated by artificial intelligence technology in Indonesia.

Based on the explanation above, a question arises about the possibility of AI misuse in violating copyright. Can AI be held responsible for such infringement? If the law only recognizes humans and legal entities as copyright subjects, then this can become a serious problem if AI causes losses and engages in illegal actions. Due to the lack of regulations governing copyright infringement by AI, this reflects Indonesia's inability to compete in the era of Industry 5.0.

2.   Discussion

2.1   Artificial Intelligence as Copyright Holder and Having Full Responsibility

The first way to solve the problem is by changing the classification of "creator" and including artificial intelligence as part of it. Some academics, such as Shlomit Yanisky Ravid, argue that artificial intelligence can become an autonomous legal entity based on two alternative premises. The first premise states that artificial intelligence systems have features such as rationality, independence, and the like that are the same as humans, so they must be treated as independent entities with legal rights and obligations. The second premise states that artificial intelligence systems can be analogized as separate companies or non-human legal entities that are able to have legal rights, profits, and obligations (Shlomit Yanisky, 2017).[6]

The main idea of Shlomit is to view artificial intelligence as an entity that has personality and is capable of experiencing consciousness. Artificial intelligence can sense and make decisions independently like humans. This means that artificial intelligence has the ability to recognize, divide, organize, and remember cognitive resources with its own consciousness (Shlomit Yanisky, 2017).[7]

Ryan Abbott's view aligns with Shlomit's argument about the independence of artificial intelligence systems. According to Abbott, making computers inventors not only helps solve academic problems but also provides certainty for business, justice in research, and scientific progress (Ryan Abbott, 2016).[8]

However, the argument is not intended to grant exclusive rights and responsibilities to artificial intelligence. According to the author, at present, AI programmers and companies behind the machines can more easily have exclusive rights and responsibilities in printing copyrighted works. However, AI-generated works are certainly different from human-created works and only meet low standards of originality. Ultimately, the practical goal of allocating copyright to an algorithm will be highly contentious and granting copyright to AI can undermine the economic rights incentive inherent in copyright law.

Samantha Hedrick suggests a solution to incentivize artificial intelligence to remain creative by providing incentives to programmers who instruct the creation of artificial intelligence works. Since artificial intelligence is not a legal subject, and there is currently no court that gives legal standing to artificial intelligence (Kalin Hristov,2017),[9] Therefore, in order

to have legal capacity and be able to exercise the rights and obligations that are attached to copyright law, a legal person is needed.

Meanwhile, when there is a copyright infringement, whether it be exclusive or economic rights, artificial intelligence does not have the ability to defend its own rights. In this case, the presence of a legal entity or a non-artificial intelligence legal entity is needed to carry out legal actions, such as making licensing agreements or filing copyright infringement lawsuits. Because artificial intelligence cannot act independently, humans still need to be present to manage the rights and obligations related to copyright, even though humans are not the actual creators.

Currently, in terms of legal usefulness, the author decides not to discuss the issue of assigning responsibility for copyrightable works created by artificial intelligence to the artificial intelligence system itself. Instead, the argument about the autonomy of artificial intelligence in creating works refers to Ryan Abbot's view, where copyright is granted to humans. This argument will be further explained in the following section.

2.2 Users, Programmers, or Artificial Intelligence Companies as the Holders of Responsibility for Creations Made by Artificial Intelligence

One of the second ways to provide incentives to artificial intelligence is by making users, programmers, or artificial intelligence companies the copyright owners. This concept is based on the assumption that "behind every good robot is a good person". Meanwhile, the International Protection of Intellectual Property (AIPPI) argues that works created by artificial intelligence can only be protected by copyright if they are done by humans (Veiksa Ingrida, 2021).[10]

The first consideration is to make the end-user the copyright holder responsible for the works created by artificial intelligence. This is based on the argument that the end-user is the fixation tool of a work or the party responsible for arranging the final result of a copyrighted work. Robert Yu supports this argument, stating that allocating copyright to the end-user makes more sense in terms of policy and economics because the end-user is the one who determines whether the machine is used to create a work (Robert Yu, 2017).[11]

End-users can provide significant contributions to the output when they provide instructions to a computer with their particular skills. However, problems arise when the reverse scenario occurs. Sometimes, the end-user only provides commands to the computer to solve a problem, and then the computer independently processes the solution to the problem. In this case, the user cannot be considered responsible for the creation.

Another opinion regarding the allocation of responsibility in copyright law is to give it to the programmer. This argument is supported by Annemarie Birdy, who argues that intuitively and based on the principle of transitivity, the programmer of the artificial intelligence software is the logical owner of the copyright in the works created by the program. Just like a photographer behind the camera, the programmer or programming team must be behind every activity of artificial intelligence (Annemarie Bridy, 2012).[12]

The question of granting copyright and responsibility to programmers is an acknowledgment of their contribution to creating a work of art through artificial intelligence. However, it should be noted that there may be overlapping rights over artificial intelligence technology or software, as well as the programmer's lack of knowledge about the work produced by their artificial intelligence.

The last option for granting copyright and legal responsibility to a human responsible for artificial intelligence is the AI company itself. The reason is that in some cases, if a programmer works for a company, according to the work made for hire (WMFH) doctrine, copyright and legal responsibility can be given to the company that employs the algorithm programmer, as

long as the programmer's employment contract with the company is still valid (Ingrida Veiska, 2021).[13]

The WMFH clause is used by some countries as a solution to address copyright issues on works created by artificial intelligence. In Japan, the AI company is granted copyright, while in the UK, the person who arranges for the creation of the work is also granted copyright. The UK considers that person as the copyright owner, similar to film producers, recording producers, and other related rights owners, even though the creation of the work did not involve human intervention. This doctrine resembles the fictional human author doctrine proposed by Timothy Butler.

A simple solution to solve this problem is by assigning a human or legal entity as the copyright holder of artificial intelligence-generated works, but this can have negative impacts if not limited. In the long term, continuously granting copyright to specific individuals or businesses can lead to monopolies and hinder technological development, especially if they already hold patents or copyrights related to AI software. Therefore, limitations need to be applied to prevent the concentration of intellectual property rights in one party or business entity.

The author agrees that efforts in creating artificial intelligence works should be appreciated, but fair limits or standards need to be established that do not lead to unhealthy competition. Therefore, the regulation of responsibility for artificial intelligence works to humans or legal entities should be accompanied by a provision that anyone who wants to claim the work must be able to prove their contribution is greater than that of the machine that processed it.

2.3 Artificial Intelligence, Users, Programmers, and Artificial Intelligence Companies are Not Considered Legal Subjects, and Copyrighted Works Become Public Domain.

The third approach in handling artificial intelligence-created works is by not granting copyright and legal responsibility to artificial intelligence. Therefore, everyone can access and use the artificial intelligence-created works freely, without any legitimate copyright holder. This approach is based on the idea that if no human or other entity truly created the copyrighted work, then no one has the right to own the copyright of the work.

Ralph D. Clifford and some other academics advocate for an approach that does not grant copyright to works produced by artificial intelligence and does not impose legal responsibility on artificial intelligence. Clifford argues that claims to copyright by end-users cannot be sustained continuously, just as computer programmers cannot claim copyright because it only applies to humans, so the question of who can claim and be responsible for works produced by artificial intelligence can be answered with "no one." (Ralph D. Clifford, 2018).[14] Without any claim, the work is assumed to fall into the public domain category.

Patrick Zurth also argues that copyright is essentially an anthropocentric view in which the creator must be human (Patrick Zurth, 2017).[15] Therefore, with this approach, works created by artificial intelligence are not protected by copyright and there is no legal liability for artificial intelligence because the works are produced from an independent process that cannot be attributed to any human. The algorithms of artificial intelligence can continue to evolve and operate more independently without human assistance (Patrick Zurth, 2017).[16]

All elements in the creation of artificial intelligence works, namely the artificial intelligence itself, the end-user, and the programmer, complement each other. However, discussing legal responsibility in the context of the creator will certainly face challenges in terms of fairness, legal certainty, and benefits. One fair option may be to grant creator status to all three elements, but this is difficult to legally apply to artificial intelligence, which is still difficult to be considered as an autonomous legal subject.

In the context of artificial intelligence, since the machine itself cannot enjoy the benefits of exclusive copyright, then the humans or legal entities involved in creating the work should be given recognition for their hard work in creating the machine. However, such recognition should take into account factors such as the possibility of hoarding rights and granting unproductive rights.

The author proposes that legal responsibility and copyright over artificial intelligence creations can be given to the end-user, programmer, or AI company under certain conditions. The end-user can obtain copyright if they can prove their contribution to the creation of the work and meet market demand. Meanwhile, programmers and AI companies can obtain copyright if the algorithms they create can make artificial intelligence create works under their control.

Regarding the creation of works directly produced by artificial intelligence independently, as well as artificial intelligence that exists in software and browsers that are in the public domain, there is no legal liability attached to anyone, so the work automatically becomes public domain. Therefore, the use of such work can be considered fair use for other developers who want to further develop the technology.

This means that the granting of copyright is based on Article 7 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which clarifies that the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation, transfer and dissemination of technology for the mutual benefit of producers and users of technological knowledge in a manner conducive to social and economic welfare and to maintain a balance between rights and obligations.

3.   Conclusion

Based on the above discussion, it can be concluded that granting copyright to works created by artificial intelligence is a complex and controversial issue. Some scholars, such as Ralph D. Clifford and Patrick Zurth, argue that artificial intelligence cannot be considered a creator with copyright, as it does not have consciousness and autonomy like humans. However, the author proposes that end-users and programmers can be granted copyright with certain conditions that must be carefully considered. In addition, recognition of the role of end-users and programmers in the creation of artificial intelligence works can help promote technology innovation and knowledge transfer, which is one of the goals of intellectual property protection under TRIPs. However, it is important to ensure that this recognition does not lead to hoarding of rights or granting of unproductive rights. On the other hand, artificially intelligent works created independently or in the public domain cannot claim copyright by anyone, thus can be considered as belonging to the public domain and can be used as fair use for further technology development. In this overall issue, aspects such as fairness, legal certainty, usefulness, and balance of rights and obligations must be considered to achieve the best solution for all parties involved.

References

[1] Savitri, M. I.: Webinar "Implementasi Artificial Intelligence, BIG DATA dan Perangkat Cerdas dalam Penelitian dimasa Pandemi 2021. (2021) Sinergimas.http://sinergimas.aiotech.id/article/webinar-implementasi-artificial-intelligence-big-data-dan-perangk.

[2] Yudoprakoso, P. W.: Kecerdasan Buatan (Artificial Intelligence) Sebagai Alat Bantu Proses Penyusunan Undang-Undang Dalam Upaya Menghadapi Revolusi Industri 4.0 Di Indonesia. Simposium Hukum Indonesia, 1, pp 450-461, 2019.

[3] Disemadi, H. S.: Urgensi Regulasi Khusus dan Pemanfaatan Artificial Intelligence dalam Mewujudkan Perlindungan Data Pribadi di Indonesia. Jurnal Wawasan Yuridika, 5(2), pp 177-199 (2021)..

[4] Amboro, F. Y. P., & Komarhana, K.: Prospek Kecerdasan Buatan Sebagai Subjek Hukum Perdata Di Indonesia [Artificial Intelligence as Private Law Subject in Indonesia: The Prospect]. Law Review, (2), pp 145-172. (2021)..

[5] Fahrudin, N.: Penerapan Metode Finite State Machine Pada Game Adventure "Franco". JATI (Jurnal Mahasiswa Teknik Informatika), 2(1), pp 446-453. (2018)..

[6] Shlomit Yanisky Ravid, Generating Rembrandt : Artificial Intelligence, Copyright, and Accountability in the 3A Era-The Human-Like Authors Are Already Here-A New Model, Michigan State Law Review, Vol. 659 No. 1, pp 685 (2017)..

[7] Shlomit Yanisky Ravid. Ibid. pp 686.

[8] Ryan Abbott.: "I Think , Therefore I Invent: Creative Computers and the Future of Patent Law", Boston College Law Review, Vol. 54 No. 2, pp 1126 (2016).

[9] Kalin Hristov.: "Artificial Intelligence and the Copyright Dilemma", IDEA : The IP Law Review, Vol. 57 No. 3. pp 441. (2017).

[10] Veiksa Ingrida, "Protection of Computer-Generated Works in the Era of New Technologies", IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 10, No. 1, pp 240. (2021).

[11] Robert Yu, "The Machine Author : What Level Of Copyright Protection Is Appropriate For Fully Independent Computer-Generated Works ?" University of Pennsylvania Law Review,Vol. 165, No. 5, pp 1261 (2017)..

[12] Annemarie Bridy, "Coding Creativity : Copyright and the Artificially Intelligent Author", Stanford Technology Law Review Vol.1 No. 1. pp 2. (2012).

[13] Ingrida Veiska, "Protection of computer-generated works in the era of new technologies", IAES International Journal of Artificial Intelligence (IJ-AI) Vol. 10, No. 1, pp 240. (2021).

[14] Ralph D. Clifford., "Creativity Revisited", IDEA : The IP Law Review, Vol. 59 No. 1. pp 27. (2018).

[15] Patrick Zurth, "Artificial Creativity ? A Case Against Copyright Protection For AI-Generated Works", UCLA Journal Of Law & Technology, Volume 25, No. 2, pp 3. (2017).