



The Impact of Artificial Intelligence on the Rights of Illustrator

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Abstract

In the era of the industrial revolution 4.0, more and more technologies are developing very quickly. With rapid developments experiencing breakthroughs including in the field of Artificial Intelligence, where computer technology was created to create systems that can match the work done by humans. Artificial Intelligence itself is widely used in various industries such as education, health, manufacturing, services, and products. Artificial Intelligence itself is a tool which can help humans in making an illustration work. The illustrator is a profession that focuses on the field of fine arts, which generally creates or provides two-dimensional based illustration images. The presence of Artificial Intelligence or AI raises new questions, whether this illustrator's career will be relevant for a long time. The results of the research show that illustrators must make the best use of Artificial Intelligence technology, not feeling threatened by this technology. This study uses mixed research methods (Mixed Methods). Where in this study combined quantitative and qualitative research methods in collecting data to obtain research results that were tested for truth. The existence of this research aims to find out what the impact of the influence of AI can create a work with only a collection of words.

Keywords: *artificial intelligence, illustrator, artwork, digital art*

INTRODUCTION

In the era of Industry 4.0, there are an increasing number of technologies that are rapidly developing, such as smartphones, computers, social media, and others. The Industry 4.0 revolution makes all processes work with automation systems in all activation processes.¹ The increasing number of people every year, causes the availability of job fields to become lower. Competition for human resources in facing the Industry Revolution results in the emergence of new job fields that were never previously thought of. One of the sectors that has the most impact is the creative industry sector in the field of illustration.

¹ Benny Agus Setiono, "Peningkatan Daya Saing Sumber Daya Manusia Dalam Menghadapi Revolusi Industri 4.0," *Jurnal Aplikasi Pelayaran Dan Kepelabuhanan* 9, no. 2 (2019): 179, <https://doi.org/10.30649/jurapk.v9i2.67>.

The advancement of technology in the digital age has led to the improvement of tools for illustrators. This has resulted in a shift towards digital art approach, where traditional analog methods are replaced by digital tools such as graphic tablets, digital pens, and specialized software. These tools allow artists to create, edit and manipulate their works in a more efficient and flexible manner, opening up new possibilities for creativity and expression. Additionally, the digital age has provided new opportunities for illustrators to reach a wider audience, through platforms such as social media and online marketplaces, as well as to collaborate with others in real-time from remote locations. The digital art approach has greatly impacted the way that illustration is created and shared, and it is an exciting time for artists to explore and take advantage of these new developments.

The advancement of Artificial Intelligence (AI) has brought about significant changes across a wide range of industries and has the potential to greatly impact our lives in the future. AI refers to the development of computer systems that are capable of performing tasks that typically require human intelligence, such as recognizing speech, understanding natural language, making decisions, and solving problems. In recent years, AI has made remarkable progress, with developments such as machine learning algorithms, computer vision, and natural language processing.² These advances have enabled computers to perform tasks that were once considered the exclusive domain of humans, such as recognizing images, translating languages, and even composing music. AI is now being used in a variety of applications, such as healthcare, education, financial services, and customer service.

One of the most exciting aspects of AI is its potential to bring about positive change. For example, AI has the potential to help solve some of the world's most pressing problems, such as climate change, disease outbreaks, and poverty. At the same time, there are also concerns about the impact of AI on jobs and privacy, and it is important to address these concerns and ensure that AI is developed and used in a responsible and ethical manner. The advancement of AI is a rapidly evolving field with the potential to greatly impact our lives in the future. It is important to continue to invest in research and development in this area to unlock its full potential for the benefit of humanity.³

Now various sectors of life are starting to rely on AI as a support for human life, E-commerce is an example of using AI in the economic sector. AI helps consumers on E-commerce sites to find goods more quickly and precisely.⁴ Then the application of AI in the education sector can be found in online learning, namely e-learning, especially with the Covid 19 pandemic which has hampered the teaching and learning process. Then in the health sector AI innovation is used to detect the Covid 19 virus based on CT-scans and X-Rays with the target of crowd detection and safe distance.⁵

² Hilvan Maulana; Dwi Cahyadi, "DESAIN SARANA BAWA DENGAN MEJA PORTABEL UNTUK PERALATAN MENGGAMBAR ILLUSTRATOR DIGITAL," *Jurnal Kreatif Desain Produk Industri Dan Arsitektur* 6, no. 2 (2019), <https://ejournal.polnes.ac.id/index.php/kreatif/article/view/29>.

³ Fransisca Retno Setyowati; Cennywati Cennywati Rahardjo, "Peta Urban Illustrator Di Jakarta," *Jurnal UltimArt* 10, no. 1 (2017), <https://ejournals.umu.ac.id/index.php/FSD/article/view/761>.

⁴ Roida Pakpahan, "Analisa Pengaruh Implementasi Artificial," *Journal of Information System, Informatics and Computing* 5, no. 2 (2021): 506–13, <https://doi.org/10.52362/jisicom.v5i2.616>.

⁵ Fitri Andri Astuti, "Pemanfaatan Teknologi Artificial Intelligence Untuk Penguatan Kesehatan Dan Pemulihan Ekonomi Nasional," *Jurnal Sistem Cerdas* 4, no. 1 (2021): 25–34.

The presence of Artificial Intelligence in various sectors of life has a positive impact, but on the other hand Artificial Intelligence is also a threat to human resources because AI is getting more sophisticated, human work is slowly being replaced.⁶ The closest example is the presence of Artificial Intelligence software which is able to create illustrations or photographs based on the descriptions entered by the user instantly. One of the online platforms used to create AI illustrations is the Wonder software, which provides good visual results. In this article, the author will find out the impact of Artificial Intelligence on employment for illustrators.

METHODS

This research was conducted with the aim of knowing what the impact of the influence of AI is on creating a work with only a collection of words. This research uses mixed research methods (Mixed Methods).⁷ The first method used in this research is interview. Questions and answers or interviews were directed to several illustrators. Here the researcher targets 3 illustrators to be interviewed, in order to provide accurate results. The first guest speaker was I Gede Adi Sudi Anggara, a generalist illustrator and lecturer in graphic design from the INSTIKI campus. The second speaker is I Gede Artha Wibawa, a student who works as an illustrator who focuses on semi-realist art. The second method used in this research is literature study by collecting various related articles to support the statements of the interview results.⁸

RESULTS AND DISCUSSION

Artificial Intelligence Definition and its Scope in The Field of Illustration

Art is a result of the creation of works done by humans and can also be said as an expression of human feelings. However, not everything created by humans can be categorized as a work of art because not all creations are intended as a work of art. According to Hasanah, art is an expression that is shown by humans where this expression has an element of beauty which will be poured into a real media and can be enjoyed by all five human senses.⁹ According to Dickie, a work of art is a work made by humans which is shown to a group of people who are ready to understand the work.¹⁰ In this way art itself is interpreted as a way for humans to express themselves by making a work of art, which is a work that will be enjoyed by a group of people.

Illustration itself can be interpreted as a work of art which can explain a certain purpose or a certain purpose where this explanation is displayed in a visual form. This illustration can be in the form of a photographic

⁶ Pakpahan, "Analisa Pengaruh Implementasi Artificial."

⁷ Ashleigh Watson, "Methods Braiding: A Technique for Arts-Based and Mixed-Methods Research," *Sociological Research Online* 25, no. 1 (2020), <https://doi.org/10.1177/1360780419849437>.

⁸ Rian Vebrianto et al., "Bedelau: Journal of Education and Learning Mixed Methods Research: Trends and Issues in Research Methodology," *Bedelau: Journal of Education and Learning*, vol. 1, 2020.

⁹ Endang Citrowati and Farida Mayar, "Strategi Pengembangan Bakat Seni Anak Usia Dini," *Jurnal Pendidikan Tambusai* 3, no. 6 (2019).

¹⁰ Muhammad Gazali, "Seni Mural Ruang Publik Dalam Konteks Konservasi," *Jurnal Imajinasi* XI, no. 1 (2017): 69–76.

image, or a realistic image.¹¹ According to a research, illustration is an activity that interprets some information where this information is in the form of graffiti which will produce a work of art in the form of two dimensions.¹² There is also a notion of illustration according to Hutasuhut¹³ where illustration means a work in the form of visuals with writing that uses drawing, painting, photography or other art techniques which emphasize the subject's relationship with the intended writing rather than form.

An illustrator is a profession that focuses on the field of fine arts where it is generally the creator or provider of two-dimensional based illustration image. An illustrator worker is currently needed in this digital era, in this era is an era where technology is increasingly advanced and digital media also keeps up with technological developments.¹⁴ Illustrators themselves are needed to create digital-based two-dimensional image illustrations such as making human figure illustrations, clothing design illustrations, poster illustrations, and other illustrations.

Artificial Intelligence or commonly called AI is a human-made intelligence that is inputted into a system in a scientific context or commonly called Artificial Intelligence or AI. According to Andreas Kaplan and Michael Haelein, artificial intelligence is a system capability that is able to describe external data well, from this data the system will learn and its purpose is to perform certain tasks through flexible adaptation.¹⁵ According to the online publication Quartz¹⁶ Artificial Intelligence is a software or computer program with mechanisms for learning, then this knowledge is used to make decisions in new situations, just like humans do.¹⁷

In Indonesia, artificial intelligence is widely used in various industries such as education, health, manufacturing, services, and products. The manufacturing industry itself has applied artificial intelligence a lot in the production sector. In addition to the manufacturing industry, there are also several industries that have used artificial intelligence a lot, such as schools that implement a learning outcome assessment system with AI running it, government agencies also use this artificial intelligence to run government regulators.¹⁸

¹¹ Indiria Maharsi, *Ilustrasi* (Yogyakarta: Badan penerbit ISI, 2016),

<https://opac.perpusnas.go.id/DetailOpac.aspx?id=984553>.

¹² Farikha Ana Savitri and Deni Setiawan, "Pengembangan Buku Menggambar Ilustrasi," *Jurnal Kreatif: Jurnal Kependidikan Dasar* 9, no. 1 (2018): 58–63.

¹³ D I G Hutasuhut et al., "E-Learning Pembelajaran Ilustrasi Menggunakan Metode Iconix Process," *J-SHAKTI (Jurnal Sains Komputer Dan Informatika)* 5, no. 1 (2021): 29–38.

¹⁴ I Yustanti and D Novita, "Pemanfaatan E-Learning Bagi Para Pendidik Di Era Digital 4.0 Utilization of E-Learning for Educators in Digital Era 4.0", Prosiding Seminar Nasional Program Pascasarjana Universitas Pgri Palembang," *Jurnal Univ PGRI Palembang* 12, no. 1 (2019): 338–46, <https://jurnal.univpgri-palembang.ac.id/index.php/Prosidingpps/article/view/2543>.

¹⁵ Mangapul Siahaan et al., "Penerapan Artificial Intelligence (AI) Terhadap Seorang Penyandang Disabilitas Tunanetra," *Information System and Technology* 01, no. 02 (2020): 186–93.

¹⁶ Assyari Abdullah, "Public Relations in The Era of Artificial Intelligence: Peluang Atau Ancaman?," *ARISTO* 8, no. 2 (2020), <https://doi.org/10.24269/ars.v8i2.2629>.

¹⁷ Bernhard Heiden and Bianca Tonino-Heiden, "Key to Artificial Intelligence (AI)," in *Advances in Intelligent Systems and Computing*, vol. 1252 AISC, 2021, https://doi.org/10.1007/978-3-030-55190-2_49.

¹⁸ Kirana Rukmayuninda Ririh et al., "Studi Komparasi Dan Analisis Swot Pada Implementasi Kecerdasan Buatan (Artificial Intelligence) Di Indonesia," *Jurnal Teknik Industri* 15, no. 2 (2020).

According to I Gede Adi Sudi Anggara, Artificial Intelligence (AI) in the illustrator field is a tool that can help humans in making an illustration work. According to Artha Artificial Intelligence (AI) is a robot where the robot is tasked with helping humans in doing things related to computers. AI itself acts as a new reference source for illustrators where this AI can provide fresh references for illustrators. However, not everyone thinks that this AI can help human work, some think that this AI can threaten the Illustrator profession. AI is considered to be a threat to an illustrator's career because of the speed with which AI processes an illustration image which causes people to feel that it is easier to make an illustrative work than having to pay an illustrator to produce the work.



Figure 1. Results Illustration of Artificial intelligence
[Source: Wonder - AI Art Generator]¹⁹

One example of a platform for creating illustrations based on artificial intelligence technology is Wonder. This application was chosen because this application is free and easy to use only through a smartphone. Figure 2.1 shows the work of the wonder application by utilizing artificial intelligence which is processed based on the keywords Albert Einstein (left) and the keywords Alien Invasion (right). Based on the picture above, it shows the fact that illustration works based on artificial intelligence are able to display good and attractive visuals. The AI system utilizes an image reference search algorithm from the input keywords and creates a new image.

The Impact of AI on Digital Artists (Illustrators)

Artificial Intelligence brings a myriad of innovations that are able to answer the needs of modern humans in every aspect of human life. This will threaten human resources, because slowly - slowly the work that is

¹⁹ Google Play, "Wonder - AI Art Generator" (Google, 2023),
<https://play.google.com/store/apps/details?id=com.codeway.wonder&hl=en&gl=US>.

usually done by humans will be replaced by Artificial Intelligence technology.²⁰ According to Jayanegara,²¹ the connection of work equipment with the Internet of Thing (IoT) and Artificial Intelligence allows various applications to provide many alternative layouts. This makes it easier for humans to create digital works which causes everyone to create digital works without taking design education. The presence of Artificial Intelligence or AI raises new questions, whether this illustrator's career will be relevant for a long time.

According to I Gede Adi Sudi Anggara, the work of illustrators in the future will continue to live because the creativity possessed by humans cannot be replaced by AI, even though AI creates illustrative works in an instant, but Artificial Intelligence itself does not have meaning or characteristics in his work. As before, traditional artists feel threatened by the presence of software that is starting to emerge, such as Photoshop, Illustrator, and other graphic software. But now these traditional artists have their own market and also have their own characteristics. Therefore, the work of this illustrator will continue to live because each artist has their own characteristics and different target markets.

According to Artha himself, this illustrator career will still be relevant for a long time, because each artist has their own characteristics which AI does not have. Artha said that although this illustrator's career is still in progress, we must be able to adapt to this increasingly rapid technological advancement. The presence of AI also won't make it late for people to learn this field of illustration, the difference may only be its application in making an illustration work. When traditional art is still in great demand, we make pictures using traditional materials. With the development of technology, graphic processing software emerged and then continued with the presence of pen tabs where everything was digitized, and now AI appears which is considered to be able to threaten the work of illustrators. But back to the illustrator, whether we humans are able to adapt or not, threaten or not depends on the illustration worker himself.

Although in processing a work of Artificial Intelligence (AI) itself it is very fast to do it. But behind the speed of AI in making a work, still the results of an AI will not be able to beat the work of an illustrator. Because basically the work of AI is not natural, so it has no meaning, emotion and characteristics in every image in the work. Artificial intelligence itself can really replace human work, but not all work can be done by AI. This can also be seen from the emotional side that humans have, where this AI does not have an emotional side.²² So it can be said that the work of this AI has a quality that is not comparable to works made by humans.

The presence of artificial intelligence has had a major impact on the art industry, especially in the field of digital illustration. Moreover, AI can provide good visual results easily and quickly. But behind all that AI has weaknesses because it is nothing but a robot that does not have a sense of art and creativity like humans. Today's illustrators must be able to make good use of Artificial Intelligence (AI). As stated by I Gede Adi Sudi Anggara, AI capabilities can facilitate illustrators' work in finding ideas and references. In making a work, a collection of ideas is needed, this is usually done in quite a long time. The presence of AI can actually make it

²⁰ Pakpahan, "Analisa Pengaruh Implementasi Artificial."

²¹ I Nyoman Jayanegara, "Disrupsi Desain Komunikasi Visual Dan Revolusi Industri 4.0.," in *Kapita Selektia Citraleka Desain 2020: Dialektika Seni, Desain Dan Budaya Pada Era Revolusi Industri 4.0* (STIKI Indonesia, 2020), https://www.google.co.id/books/edition/Kapita_Selektia_Citralka_Desain_2020_Dia/BrDuDwAAQBAJ?hl=en&gbpv=1&dq=Disrupsi+Desain+Komunikasi+Visual+dan+Revolusi+Industri+4.0.&pg=PA208&printsec=frontcover.

²² Pakpahan, "Analisa Pengaruh Implementasi Artificial."

easier for illustrators to find new ideas and fresh illustrations. So this Artificial Intelligence (AI) actually makes it easier for illustrators to process an illustrative work, instead of threatening the illustrator's work. But back again to each person's personal response to this, but it would be better for us to take advantage of existing technology because the technology that is made will continue to develop and humans must be able to adapt to increasingly rapid technological advances.

Legal protection for illustrators after AI

The legal protection for illustrators after the emergence of AI is an evolving area of law. With the increasing use of AI in the creation of images and illustrations, it is becoming more important for illustrators to understand their rights and the ways in which they can protect their work. One of the key issues is the question of who owns the rights to a work created using AI. In many cases, the creator of the AI algorithm may claim ownership of the work created by the AI, while the illustrator may argue that they had a hand in creating the work and should therefore own the rights. To address these issues, it is important for illustrators to clearly establish their ownership rights by entering into written contracts with the creators of AI algorithms and to clearly define their role in the creation of the work. Illustrators may also consider registering their work with the relevant copyright authorities to establish their ownership rights. Additionally, the laws surrounding AI and copyright are still developing, and it is important for illustrators to stay informed about the latest developments and to seek the advice of legal professionals if they have any concerns or questions. While AI has the potential to revolutionize the world of illustration, it is important for illustrators to be aware of the potential legal challenges and to take steps to protect their work and their rights.²³

In Indonesia, the regulation concerning the rights of illustrators against AI is primarily governed by Law No. 28 of 2014 on Copyright. This law provides protection for original creative works, including illustrations, and defines the rights of copyright owners, including the right to control the use and dissemination of their works. However, the law does not specifically address the issue of AI-generated works, and as a result, the rights of illustrators in relation to AI-generated works may be somewhat uncertain.²⁴ In these cases, it is likely that the rights of illustrators will be determined on a case-by-case basis, taking into account the specific circumstances of each case and the provisions of the copyright law. In general, if an illustrator has made a significant contribution to the creation of an AI-generated work, they may be able to claim co-authorship and therefore co-ownership of the work. In these cases, the illustrator may have the right to control the use and dissemination of the work, as well as the right to receive compensation for its use. However, if the AI has created the work entirely on its own, without any input or contribution from the illustrator, the illustrator may not have any rights in the work.²⁵ In these cases, the rights to the work would likely be held by the creator of the AI algorithm. It is important for illustrators in Indonesia to be aware of these potential legal challenges and

²³ Ario Adi Prakoso, "Implementasi Undang-Undang Hak Cipta No. 28 Tahun 2014 Pada Aktivitas Reprografi Koleksi Digital," *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi Dan Kearsipan* 5, no. 1 (2019), <https://doi.org/10.14710/lenpust.v5i1.22043>.

²⁴ Dr. Lance Eliot, "Dr Lance Eliot - An Ontological AI-and-Law Framework for the Autonomous Levels of AI Legal Reasoning," *AxRiv*, no. August 17 (2020): 1–22.

²⁵ Katie Atkinson, Trevor Bench-Capon, and Danushka Bollegala, "Explanation in AI and Law: Past, Present and Future," *Artificial Intelligence* 289 (December 1, 2020), <https://doi.org/10.1016/j.artint.2020.103387>.

to take steps to protect their work and their rights. This may include entering into written contracts with the creators of AI algorithms, clearly defining their role in the creation of the work, and registering their work with the relevant copyright authorities. The regulation concerning the rights of illustrators against AI in Indonesia is still developing, it is advisable for illustrators to stay informed about the latest developments and to seek the advice of legal professionals if they have any concerns or questions.

CONCLUSION

In the era of the industrial revolution 4.0, more and more technologies are developing very quickly, such as the presence of smartphones, computers, social media, and others. With so many developing technologies, of course, we as humans must also adapt to increasingly sophisticated technologies, for example Artificial Intelligence. This Artificial Intelligence is in the form of a tool (tools) that can help humans in doing something, in this study, namely the work of illustrations. The presence of Artificial Intelligence is a big threat to digital artists, but in this era of globalization, we cannot go against the flow of technological developments. As an illustrator, of course, you have to make the most of this technology, not feel threatened by it. As discussed above, uses Artificial Intelligence as a tool to help design a new work or commonly known as brainstorming. With this discussion, it is hoped that illustrators can adapt to technological advances and make the best use of this technology. Because Artificial Intelligence is made to help human life instead of threatening it. As well as existing regulations in Indonesia must be able to provide protection for the rights of illustrators.

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