

THE EVOLUTION OF AI IN THE COPYRIGHT DOMAIN: THE ARTISTRY OF ALGORITHMS

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Abstract

The field of artistic expression is changing as a result of artificial intelligence (AI) being included in creative sectors. This study investigates how artificial intelligence (AI) affects creativity, with a particular emphasis on the rise of AI-generated art and its consequences for copyright laws, ethical issues, and the creative process. This study explains how human creativity and machine intelligence have evolved by looking at key moments in AI development, from Alan Turing's ground-breaking research to the introduction of contemporary generative AI models like ChatGPT and DALL-E 2.

This research paper confidently delves into the intricate relationship between AI and copyright protection in the world of arts. Along with this, the influence of artificial intelligence (AI) on innovation and copyright law is examined in this paper. Debates concerning originality, authorship, and fair use have been triggered by the introduction of generative AI systems that may generate innovative writing, pictures, and music. The legal issues surrounding AI-generated works are examined in this research, along with the possibility that AI is an author in and of itself. It looks at cases brought by artists against AI firms for purportedly training AI models without permission using copyrighted content.

The study looks at AI's potential advantages for creative pursuits as well, arguing that technology should complement human creativity rather than take its place. In conclusion, it talks about current initiatives to create moral guidelines for AI research and possible legislative changes to handle copyright concerns in the era of artificial intelligence-generated art.

Keywords: Artificial Intelligence, Generative AI, Copyright Law, Creativity, Authorship, Fair Use, DALL-E

Introduction

The world of creativity is gradually shifting due to artificial intelligence (AI), which is also the primary force behind new technologies like big data, cloud computing, blockchain, and the Internet of Things (IoT). According to Dr B. Copeland, Artificial intelligence (AI) is the capacity of a computer or robot under computer control to carry out operations typically performed by intelligent entities. The phrase refers to the ongoing effort to develop artificial intelligence systems that possess cognitive abilities similar to those of humans, including meaning-finding, reasoning,

generalisation, and experience-based learning.³⁶⁰

In today's world, AI-driven autonomous technologies are starting to impact many human endeavours within the creative industry and arts. The emergence of artificial intelligence-generated art has the potential to change the way we create and how we perceive creativity in general, affecting not just literature, painting, and music composition but also video animation. Numerous algorithms that use generative AI approaches have been

³⁶⁰ B.J. Copeland, "Artificial intelligence" (*Encyclopaedia Britannica online ed.*, on 10 June 2020) <<https://www.britannica.com/technology/artificial-intelligence>> Accessed 5 April 2024.

created as a result of advancements in AI research. These algorithms have been employed by businesses to develop platforms for generative AI art. Among these, ChatGPT, Google Gemini, Perplexity AI, Midjourney, DALL-E 2, Stable Diffusion, and Stability AI are the most well-liked and many more have influenced the field of art and architecture. The model generates content (text, picture, and video) based on its training dataset when users input text prompts into a text-based interface. By the end of 2022, ChatGPT had maybe established itself as a distinct tool category thanks to its ability to mimic natural language and foster a feeling of dialogue.³⁶¹

Creators have begun adopting these generative tools because they can also generate high-quality artwork from text prompts employing creative styles, keywords, themes, and thoughts. Game designer Jason M. Allen, of Pueblo West, Colorado, stirred much controversy in August 2022 when he took first prize in the Colorado State Fair Fine Arts Competition's emerging artist division's digital art category. With its award-winning image, Allen questioned the conventional notion of art and the place of artificial intelligence in the creative process. His entry, nevertheless, was not as dishonest as Absolutely AI. Absolutely AI, which is a Sydney-based AI Studio produced the winning image in an Australian photography competition in February 2023.³⁶²

There are also continuing discussions over the legality of the outputs from generative AI systems and their responsible creation and usage among artists, AI developers, policy officials, and art viewers. The influence of artificial intelligence (AI) on the creative industry is a topic of increasing discussion as the subject continues to advance quickly. The possible impact on jobs in the creative industry,

including those of authors, designers, and artists, is one of the primary topics of concern. While some experts contend that AI technologies will only enhance and expedite the creative process, others contend that they may eventually replace human creators entirely. Another aspect people argue about is the impact of AI on the existing and upcoming copyright regimes as to whether this new era of technology will result in infringement or become the new face of originality, ultimately affecting the future of artists altogether.

Copyright: Meaning and Evolution

Intangible works of human intelligence are included in the category of property known as intellectual property, or IP. It refers to mental products like innovations, literary and creative compositions, designs, names, symbols, and pictures utilised in trade. Intellectual property comes in a variety of forms, and some nations recognise it more than others. Trade secrets, copyrights, trademarks, and patents are the most well-known categories.³⁶³

According to the Oxford Reference Dictionary, copyright means "The right to govern the reproduction of a literary or creative work, including computer software, in any medium, usually belongs to the original creator or creators, as the content and arrangement constitute their intellectual property." Authors have the option to grant others copyright or the ability to make duplicates later on. Concepts do not fall under the purview of copyright.³⁶⁴

Copyright roots its origin in the development of the printing press in parts of Europe, sometime in the late 15th century. In Europe, although the printing press significantly reduced the cost of producing works, anybody could own or hire a press and publish any material at first since copyright laws were non-existent. With this approach, the most well-known publishers in London made extremely considerable money;

³⁶¹ AM Piskopani et al., "Responsible AI and the Arts: The Ethical and Legal Implications of AI in the Arts and Creative Industries" (*Association for Computing Machinery*, New York, NY, United States, July 2023).

³⁶² Jack Evans "Man or machine?: Is this Australia's most controversial photo?" (*news.com.au*, 3 February 2023) <www.news.com.au/technology/gadgets/cameras/man-or-machine-is-this-australias-most-controversial-photo> Accessed 5 April 2024.

³⁶³ WIPO, "What is Intellectual Property?" (*WIPO*, n.d.) <<https://www.wipo.int/about-ip/en/>> Accessed 5 April 2024.

³⁶⁴ "Copyright" Oxford Reference Dictionary (*Oxford University Press*, n.d.) <<https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095638225>> Accessed 5 April 2024.

some even drove around the city in gilded carriages. Their books were considered to be pure luxury products, and their clientele consisted of the nobles and the rich. Around the same time, publishers in Germany were under pressure from plagiarizers who could reprint every new publication and sell it for a low price without worrying about getting caught. In response to these imitators, astute publishers used a cunning strategy and created a publishing model that is still widely used today: high-end editions for their affluent clientele and inexpensive paperbacks for the general audience. Competitors quickly re-set and re-published popular new works, so printers required a steady supply of fresh content. High fees were paid to writers for new publications, which considerably increased many professors' pay. The Statute of Anne, which was a successor to the industrial property legislation in England, became the cornerstone of copyright legislation in America in 1790 and subsequently across the globe.³⁶⁵

Nonetheless, the Berne Convention was established in 1886 to facilitate the mutual recognition of copyright between governments and to encourage the creation of global copyright protection norms. Almost all countries have ratified the Berne Convention, which eliminates the need to register works individually in each of the 244 states and territories mentioned on this page. Nearly all of the world's major nations are currently covered by the Convention, which was adopted by the United States in 1988. The foundation for international copyright law is still provided by the Berne Convention, which is still in effect today. The Berne Convention's acceptance resulted in several significant developments, one of which was the removal of the registration requirement and the extension of copyright protection to unpublished works. As long as a work is documented in any way—by writing it

down, drawing it, photographing it, etc.—it is the property of the individual (or the organisation they work for) in countries that have ratified the Berne Convention.

Then came the 1994 Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement, an international legal minimum standards agreement signed by all WTO member nations that introduced the principle of the most favourable nation in addition to the national treatment principle.

TRIPS also introduced the concept of Idea versus Expression of an Idea distinction, according to which copyright is a right that protects the expression of an idea but does not provide protection for the idea itself. As a result, the same idea can be expressed differently and still be protected (as long as it complies with legal requirements and limitations).

Copyright Law in India: A Timeline

In India, the historical origins of copyright laws can be tracked down from the period when scribes copied and kept books in palm-leaf manuscripts. From then to the British colonial era during the 19th century, the Indian Copyright Act of 1914 was the first legislation piece for the protection of copyright and other subsequent rights. This was taken up and inspired by the Imperial Copyright Act of 1911 of the United Kingdom. This act granted the author protection over his artistic work for 50 years from its date of creation. After India attained independence in 1947, in 1958, the previous act was replaced by the Copyright Act of 1957. This act broadened the definition of protected works to include sound recordings, motion pictures, and music in addition to literary and creative works. The Copyright Board was also formed by the Act to resolve different copyright-related disputes.³⁶⁶

The majority of significant international agreements about copyright law are ratified by India, including the Rome Convention of 1961, the Universal Copyright Convention of 1951, and the

³⁶⁵ Frank Thadeusz “The real reason for Germany’s Industrial Expansion?” (*Spiegel International*, 2010) <<https://www.spiegel.de/international/zeitgeist/no-copyright-law-the-real-reason-for-germany-s-industrial-expansion-a-710976.html>> Accessed 5 April 2024.

³⁶⁶ Jatindra Kumar Das, “Law of Copyright” [2021] *PHI Learning Pvt. Ltd.* (2) 720.

Berne Convention of 1886 (as amended in Paris in 1971) and after the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS) in 1994, Indian laws on copyright went through multiple changes and amendments to adjust itself through the changing landscape of technological advancements and growing society. Through this, the term of protection of an artistic work subject to copyright protection was increased from 50 years to the entire lifetime of the author plus 60 years after his death or the exhaustion of his work.³⁶⁷

Several works of the judiciary have also recognised the importance of copyright protection. In 2006, in the case of *Holy Faith International v. Dr Shiv Kumar*³⁶⁸, the Andhra Pradesh High Court held that the main purpose of and primary function of copyright law is to prevent others from taking away an individual's labour, expertise, or product. Similarly in 2008, in the case of *Eastern Book Company v. D.B. Modak*³⁶⁹, the Supreme Court of India held that the purpose of the Copyright Act of 1957 is to encourage others to freely use and build upon the ideas and information disseminated by the copyrighted work to promote, rather than impede, the socioeconomic and cultural advancement of society. This is in addition to rewarding and recognising the labour and creativity of the original work's authors for their expression of ideas.

About AI in the Artistic Field

No one can dispute the artistic boom that the creative sector has experienced as a result of ChatGPT and other technologies. These are a few instances of artificial intelligence in tools and technology. When we hear the phrase "Artificial Intelligence" (or "AI"), we may conjure up images of anything from less scary images like Alexa questioning someone to more horrifying images of robot armies trying to

exterminate humankind. Artificial intelligence seems to be making a comeback in the IT industry. Regretfully, we have learned that they are using Gmail to reply to emails, browse through our holiday photos, and learn how to drive. Mark Zuckerberg is even building one to help with housework.³⁷⁰

The term is now widely used to refer to a wide range of cutting-edge technologies. According to Black's Legal Dictionary, "Artificial intelligence is a program or a set of algorithms designed to improve computer and robot performance above that of humans. The networks are neutral or rule-based systems. It is utilised in the development of robots, human language understanding, and innovative goods."³⁷¹ With the advent of artificial intelligence (AI), the creative process has taken on a new dimension that has opened up new avenues for exploration and imaginative expansion for artists. The increasing application of AI in the twenty-first century is driving a shift in society and economy towards more automation, data-driven decision-making, and the incorporation of AI systems into a range of industries and economic sectors, including government, industry, education, healthcare, and the labour market.

Specific objectives and the use of specific instruments are at the core of each of the subfields within AI study. AI research has historically focused on natural language processing, planning, learning, reasoning, knowledge representation, vision, and robotics assistance. One of the long-term objectives of the area in general intelligence, or the capacity to execute any work that a person can perform on at least an equivalent level.³⁷²

³⁶⁷ Dr Raghvendra GR "A brief History of Evolution and Development of the Copyright Law of India" (*LinkedIn*, June 2023) <<https://www.linkedin.com/pulse/brief-history-evolution-development-copyright-law-india-gr>> Accessed 5 April 2024.

³⁶⁸ *Holy Faith International Pvt. Ltd. vs Dr. Shiv K. Kumar* [2006] (33) PTC 456 (AP).

³⁶⁹ *Eastern Book Company & Ors vs D.B. Modak & Anr* [2008] (36) PTC 1 (SC).

³⁷⁰ James Vincent, "What counts as artificially intelligent? AI and deep learning, explained" (*The Verge*, February 2016) <<https://www.theverge.com/2016/2/29/11133682/deep-learning-ai-explained-machine-learning>> Accessed 5 April 2024.

³⁷¹ "Artificial Intelligence" (*Black's Legal Dictionary 2nd Ed. and the Law Library*, n.d.) <<https://thelawdictionary.org/?s=Artificial+Intelligence+>>> Accessed 5 April 2024.

³⁷² Pennachin, C.; Goertzel, B. (2007). "Contemporary Approaches to Artificial General Intelligence". *Artificial General Intelligence. (Cognitive Technologies. Berlin, Heidelberg: Springer)* pg. 1–30.

Intelligence Origins: AI

Alan Turing was one of the first people in history to be recognised and work in the field of artificial intelligence. Turing presented his description of an abstract computing machine in 1935. It had an infinite memory and a scanner that scanned through it symbol by symbol, recording new symbols and reading what it discovered. An instruction program, which is likewise stored in the memory as symbols, controls the operations of the scanner. In a study titled "Intelligent Machinery," he presented a few of the fundamental ideas of AI in 1948. As expressed by Turing in the early 1940s in his work "Computer Machinery and Intelligence", the "generate-and-test" approach is a term used by contemporary AI researchers. A guided search is used to produce potential solutions to a given problem. After that, an additional technique is used to examine these prospective solutions to determine which ones are genuine solutions. The First procedure was automated by the bombe. The stops, or possible solutions, were then carefully tested (by configuring an Enigma duplicate appropriately, entering the cypher text, and seeing if German emerged or not). These days, the same software usually handles the generation and testing phases of AI. Turing boldly proposed in 1948 that "intellectual activity consists primarily of various kinds of search." His readers would have been shocked to hear of his wartime experience—at the time still classified as secret—with mechanised search. The same theory was separately proposed by Herbert Simon and Allen Newell in the USA around eight years later, and thanks to their significant contributions, it became one of the foundational ideas of artificial intelligence.³⁷³

Christopher Strachey, who went on to become the director of the University of Oxford's Programming Research Group, wrote the first effective artificial intelligence programme in

³⁷³ A. Newell, J. C. Shaw, and H. A. Simon, "Empirical Explorations with the Logic Theory Machine: A Case Study in Heuristics" (*Proceedings of the Western Joint Computer Conference*) 15 (1957), 218–39.

1951. The University of Manchester in England used a Ferranti Mark I computer to run Strachey's checkers (draughts) programme. This programme was able to play a full game of checkers at a respectable pace by the summer of 1952. Arthur Samuel's checkers programme, created in 1952 for the IBM 701 prototype, was also the first artificial intelligence (AI) application to be executed in the United States. Over several years, Samuel significantly expanded Strachey's checkers' programme by taking over its core elements. He included characteristics that allowed the program to learn from its mistakes in 1955. Samuel improved his programme by adding mechanisms for both rote learning and generalisation, which ultimately helped it defeat a previous Connecticut checkers champion in a single game in 1962.³⁷⁴

Eliza and Parry, two of the most well-known early artificial intelligence programmes, give an unsettling impression of intelligent speech. (The specifics of both were initially released in 1966.) Joseph Weizenbaum of MIT's AI Laboratory created Eliza, a programme that mimicked a human therapist. Kenneth Colby, a psychiatrist at Stanford University, created Parry, a simulation of a paranoid person. When asked to distinguish between speaking with Parry or a human paranoid, psychiatrists frequently couldn't. However, it would be inaccurate to characterise Parry or Eliza as intelligent.³⁷⁵

As we progressed through time, in the early 21st century, Large Language Models (LLMs) and Natural Language Processing (NLPs) grew in possession of people in all sectors. LLMs and NLPs involve the usage of statistics, machine learning and deep-learning models to analyse and understand the process and procedure of human beings and replicate it in a computer

³⁷⁴ B.J. Copeland, "Alan Turing and the Beginning of AI" *Artificial Intelligence* (*Britannica*, n.d.) <<https://www.britannica.com/technology/artificial-intelligence/Alan-Turing-and-the-beginning-of-AI>> Accessed 5 April 2024.

³⁷⁵ Megan Garber, "When PARRY Met ELIZA: A Ridiculous Chatbot Conversation From 1972" (*The Atlantic*, June 2014) <<https://www.theatlantic.com/technology/archive/2014/06/when-parry-met-eliza-a-ridiculous-chatbot-conversation-from-1972/372428/>> Accessed 5 April 2024.

system using the said procedures. Language models that employ AI and statistics to anticipate a sentence's ultimate form based on its current components are notable examples of contemporary natural language processing (NLP). GPT-3, a well-liked language model, was made available by OpenAI in June 2020. GPT-3, one of the earliest extensive language models, was capable of writing computer programmes and resolving arithmetic problems up to the high school level. The ChatGPT software was built on top of GPT-3, which was published in November 2022. Machines that use natural language processing (NLP) include chatbots for customer service, voice-activated GPS systems, and language translation software. Applications like NLP-based DALL-E, Stable Diffusion, and Midjourney from OpenAI employ verbal prompts—which might be as basic as "a red block on top of a green block" or as sophisticated as "a cube with the texture of a porcupine"—to generate visuals. Large datasets including millions or billions of text-image pairs—that is, pictures with textual descriptions—are used to train the programmes.³⁷⁶

Originality in AI-Generated Works

Copyright exists naturally as an incorporeal property. The work's property is justified by the tenet that its rightful owner originated or created it. For a work to be qualified for copyright protection, it must be original. A work that is independently generated and not plagiarised from another person's work or publicly accessible sources is called an original work. Originality is not related to the fundamental concept, but rather to the mode of presentation. The image-generating Midjourney and ChatGPT, among other artificial intelligence (AI) programmes, have sparked discussions about generative AI and brought up significant issues about public policy and the protectability of AI-generated works. The full effects of

generative AI are still being felt, and given the rapid speed of development, all creative industries must fundamentally prepare for an uncertain future.³⁷⁷

With the rise of artificial intelligence (AI), the creative process has taken on a new dimension that has opened up new avenues for exploration and imaginative expansion for artists. AI is now making it possible for artists to convey their thoughts in novel ways, something that has long been a goal of theirs. AI can improve your artistic journey in a multitude of ways, regardless of whether you're a painter, musician, writer, or another kind of creative.

The combination of human creativity and artificial intelligence's computing capability opens up a limitless world of possibilities for creative expression. AI is a never-ending source of creative ideas because of its ability to comb through enormous amounts of data. It can break past traditional limitations and inspire the creation of a masterpiece. AI gives artists a kaleidoscope of new views by creating unexpected connections between seemingly unrelated ideas, which ignites the creative flame that keeps them moving ahead. AI-generated imagery provides a rich field for visual artists to cultivate their artistic vision, with abstract patterns, morphing compositions, and distinctive visual themes providing ample nourishment. AI acts as a professional composer in the field of music, creating melodies, harmonies, and full symphonies with unmatched creativity and accuracy. AI explores new ground while honouring tradition by examining the extensive body of musical history. This allows players to take on previously undiscovered genres and styles confidently and curiously. Hence, the union of AI innovation with human creativity signals a rebirth of artistic expression, with the size of the digital canvas serving as the only restriction on the imagination.³⁷⁸

³⁷⁶ B.J. Copeland, "Alan Turing and the Beginning of AI" *Artificial Intelligence* (Britannica, n.d.) <<https://www.britannica.com/technology/artificial-intelligence/Alan-Turing-and-the-beginning-of-AI>> Accessed 5 April 2024.

³⁷⁷ Gerald Spindler, "Copyright Law and Artificial Intelligence" (*Computer Law and Security Review*) (27)(6) 1049.

³⁷⁸ Andres Fortino, "Embracing Creativity: How AI can enhance the Creative Process" (New York University, 2023)

One of the simplest tests of recognising whether a work has originality is by the doctrine of “modicum of creativity”. According to this doctrine, a work possesses originality if a significant degree of judgement and intellectual inventiveness are used in its construction. A minimal amount of inventiveness is required for copyright protection; however, the requirement need not be high. This was clearly explained in the case of *Feist Publication Inc. v. Rural Telephone Service*³⁷⁹, where the Supreme Court established a new standard for protecting creations based on the least amount of innovation, encouraging “creative originality.”

Now, even though AI is capable of producing amazing results, there is disagreement about whether AI is truly creative or only reacts to commands from humans. Proponents contend that AI is creative and capable of making unexpected choices and combinations. Critics claim AI is incapable of autonomous thought and can only copy current fashions. To get original results, AI may choose to protect its copyright by using its creative judgement or requiring the user to provide as little input as possible. The Copyright Act of 1957 emerged as a key source of copyright law in the intricate world of Indian copyright jurisprudence. The extent of protection for “original literary, musical, dramatic, and artistic work”.³⁸⁰ When AI systems are addressed, like DALL-E-2, plunging into writing literature and music, this clause has evolved into a basic law. The subject of originality in creative production is raised by the fact that these artificial intelligence systems generate their products with the assistance of widely available datasets.

In *Feist*³⁸¹, for example, The US Supreme Court ruled that works must be more than just tangible objects to qualify for copyright protection. If someone has produced music that didn't previously exist utilising generative AI

technologies. Then, he came up with a unique idea to fuse a singer's voice with rave music, and he redesigned the potential appearance of a party in the future. Yes, it's possible that somebody employed AI technologies to make his vision a reality, but he came up with the concept for this particular blend. Additionally, he employed those AI techniques on his own, honing the outcomes to produce a special output for his programme. A novel idea. a creative process that is repeated.

Fair Use and Fair Dealing Explained

AI which is capable of generating text, pictures, and music has become a potent tool for creating and modifying digital material. At the same time, it has brought attention to the extent of copyright laws, especially those pertaining to fair use. Understanding the relationship between generative AI and fair use requires an understanding of the Copyright Act of 1957, which governs copyright law in India.³⁸²

Fair use (in the United States) and fair dealing (in India, the United Kingdom, and Canada) are legal doctrines with certain exceptions, allowing limited use of copyrighted material sans the copyright owner's authorization under circumstances such as for criticism (including satire), commentary, news reporting, teaching (including multiple copies for classroom use), research, and parody.³⁸³

Algorithms and machine learning approaches are used in generative AI to produce new material. It allows computers to produce material that mimics human creations on their own. The generative AI environment is expanding daily, with its potential being realised in real-time, ranging from words, pictures, and art to songs using the voices of well-known vocalists. It has also sparked questions about the rights of copyright holders.

The application of fair use/fair dealing laws is challenged by the use of generative AI in content generation. In these situations, one may

<<https://www.sps.nyu.edu/homepage/emerging-technologies-collaborative/blog/2023/embracing-creativity-how-ai-can-enhance-the-creative-process.html>> Accessed 6 April 2024.

³⁷⁹ *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

³⁸⁰ Section 13 of the Copyright Act, 1957.

³⁸¹ *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

³⁸² Section 52 of the Copyright Act, 1957.

³⁸³ Section 107 of the Copyright Act, 1976 of the United States.

think about whether the AI-generated work is a derivative work intended for use in teaching, research, education, or other contexts, or for commercial exploitation. To determine if the AI-generated output really alters the original work or just outshines it, one may also consider how transformational the result is. Having said that, AI-generated content often requires many intricate stages before producing an output in response to user text commands. To do this, the AI system may use a variety of tools to analyse the relationship between the prompts and the corresponding copyrighted images it has gathered. These tools may include clustering similar text-image pairs and representing images with similar text-image combinations— which may or may not be copied images. Finding out if an AI-generated product is intrinsically transformative enough to be excused under fair use may require taking these kinds of actions.³⁸⁴

The United States District Court of Delaware received a lawsuit from Getty Images, an image licencing company, in February 2023. The lawsuit claimed that the AI company had illegally copied over 12 million photographs from Getty Images' collection, removed or altered its copyright management information, provided false copyright management information, and violated Getty Images' trademarks. The question of whether employing trademarks or copyrighted photos to train generative AI systems would qualify as fair use has not yet been addressed by the court.³⁸⁵

AI Art & Copyright Challenges

It's not new to criticise work produced using new tools and technologies. Walter Benjamin says that now criticism has been levelled about modern computer-generated art, claiming that it is neither genuine, artistic, or innovative. AI-generated art is becoming more and more popular in the art world at the same time. Some

give the artworks attributes that are often only assigned to works of human-made art. For instance, Jason Allen, the designer of "Théâtre D'opéra Spatial," an AI-generated artwork, took home an award from a Colorado art festival. The winner of the Colorado Fair Contest indicated that he chose to keep it under wraps to demonstrate AI's creative potential. His choice was seen as an effort at deception. Many contended that he needed to publish a public apology and give up the medal. Some discuss the possibility of a new Muses incarnation. Some, on the other hand, downplay the artistic quality of these pieces or decline to classify AI as an artist, creative, or artistic.³⁸⁶

The first concern with the idea that the AI itself should be considered the author of the work it creates is the challenge of precisely defining what an "AI-generated copyright work" is. This specifically has to do with how much labour an AI must do to create a piece of art for it to be granted copyright. AI applications and tools are viewed as "plagiarism machines" by many creatives, especially when it comes to using their copyrighted work as references without obtaining consent. Generative AI uses patterns it has learnt from previous works to formulate its output. Although some may counter that this is no different from an artist drawing inspiration from earlier works, plaintiffs in recent instances contend that generative AI intentionally exploits earlier works to feed and train its algorithms. The topic of how to regulate the use of generative AI in artistic industries has gained attention in the wake of the recently concluded strikes by the Screen Actors Guild ("SAG-AFTRA") and the Writers Guild of America ("WGA").³⁸⁷

According to several illustrators and painters, AI generators are frequently trained not just on public domain photos but also on copyrighted images that are illegally taken from their portfolios on websites like Artstation and

³⁸⁴ Madhuri Rewari, Shree Misra, "Generative AI and fair use/fair dealing" (*AsialP*, August 2023) <asiaip.com/article/generative-ai-and-fair-use-fair-dealing> Accessed 6 April 2024.

³⁸⁵ *Getty Images (US), inc., v. Stability AI, ltd. and Stability AI, Inc.*, 1:23-cv-00135-GBW.

³⁸⁶ Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" (*Lulu Press*, 2021) 7.

³⁸⁷ Matt Savare et al., "The copyright conundrum – protection for AI works" (*Thomson Reuters*, November 2023) <<https://www.reuters.com/legal/legalindustry/copyright-conundrum-protection-ai-works-2023-11-28/>> Accessed 6 April 2024.

Pinterest without their consent. For instance, Greg Rutkowski, a well-known digital artist from Poland, creates surreal fantasy landscapes by utilising traditional painting techniques. Upon realising that his name had been prompted around 93,000 times, Rutkowski became aware of the dangers these systems offered.³⁸⁸

Three artists—Kara Ortiz, Sarah Andersen, and Kelley McKernan—filed a class action lawsuit against three businesses that provide AI picture generators (DeviantArt, Midjourney, and Stability AI) on January 2023³⁸⁹. The artists claim in their case that the firms used web scraping to gain access to their copyrighted works. Because it allows people to produce works, the outputs are derivative works of the photos it uses as inspiration. Additionally, they assert that their own previously published works could face competition from AI-generated content in the market. In the weeks that followed, Getty Images filed identical lawsuits alleging copyright infringement against Stability AI in US and UK courts.³⁹⁰

Another concern that arises with grating AI-generative models the data to work on their creativity is the possibility of a data breach. In 2022, The LAION-5B picture collection, a web scrape of publicly accessible photographs, contains references to confidential medical record photos that a California-based AI artist going by the moniker Lapine found. Her doctor took these shots in 2013. To train AI image synthesis models like Stable Diffusion and Google Imagen, researchers download a subset of that data. On a website called “Have I Been Trained”, which allows artists to check if their work is included in the LAION-5B data collection, Lapine found her medical images. Lapine used the website's reverse image search function to submit a current photo of herself rather than

conducting a word search. As evidenced by an authorization document Lapine tweeted and gave to Ars, she was shocked to see a set of two before-and-after medical images of her face that her doctor had only approved for private use. Lapine, an AI-powered artist, has found that the LAION dataset included her post-op photo without permission. This concern is linked to the more significant one of AI picture models being trained on the creations of artists without the artists' consent. Although Lapine's art has previously garnered her a following on Twitter, this experience has cautioned her against creating photorealistic photos of individuals. These days, her main interests include sculptures, animal topics, and artwork from a particular era or style.³⁹¹

When discussing the issue of independent creative endeavour in the context of copyright law, the defendant bears the burden of demonstrating that the work is independent if the defendant was unaware of the plaintiff's prior work or was not familiar with it. While it's easy to find the artists responsible for conventional creations, artificial intelligence raises many concerns about reliable sources of creativity. Within the artificial generating system, the user's command via improved prompts, assisted by several iterations, is highlighted as an artistic activity to produce artistic output. In addition, as compared to conventional methods of creative labour, the AI system requires less human labour. Even the AI-generating system, nevertheless, requires human labour. There is no fundamental shift in the process of creative production; the nature of the instruments is the only thing that has changed. Such an AI work can be justified for copyright protection by fulfilling both the originality and inventiveness requirements.

At a deeper level, machines are not autonomous, which means they cannot use their ownership rights at their “sole free

³⁸⁸ Vittoria Benzine, “A.I. Should Exclude Living Artists From Its Database,” Says One Painter Whose Works Were Used to Fuel Image Generators” (*artnet*, September 2022) < <https://news.artnet.com/art-world/a-i-should-exclude-living-artists-from-its-database-says-one-painter-whose-works-were-used-to-fuel-image-generators-2178352>> Accessed 6 April 2024.

³⁸⁹ *Andersen and Anr. v. Stability AI Ltd.*, 3:23-cv-00201, (N.D. Cal.).

³⁹⁰ AM Piskopani et al., “Responsible AI and the Arts: The Ethical and Legal Implications of AI in the Arts and Creative Industries” (*Association for Computing Machinery, New York, NY, United States*, July 2023).

³⁹¹ Benj Edwards, “Artist finds private medical record photos in popular AI training data set” (*arstechnica*, 2022) <<https://arstechnica.com/information-technology/2022/09/artist-finds-private-medical-record-photos-in-popular-ai-training-data-set/>> Accessed 6 April 2024.

discretion." As a result, AI machinery is unable to use legal recourse to enforce its rights through infringement claims. In terms of economics and society, giving authorship to AI fails to fulfil the goal of intellectual property (IP), which is to encourage writers to produce more works and broaden their creative expression for the good of society. Automata lack incentives to produce and will not compensate stakeholders for their labour.³⁹²

Resolving Concerns of AI-Generated Works

Concerns have been raised about how the use of generative AI may affect human creativity in industries such as media, entertainment, art, and journalism. Generative AI may replace some of the jobs that people used to perform, even if it's unlikely that it will replace people in these industries. It's feasible that in the future, artificial intelligence (AI) may create an expressive work's initial draft, which humans would subsequently revise. On the other hand, artificial intelligence (AI) can alter and modify human-authored products while maintaining their originality. The difficulties in integrating AI into art highlight the complex relationship between creative expression and technical advancement. Artists who use AI as a creative tool must overcome these obstacles mindfully and creatively, figuring out how to use AI's advantages without sacrificing their aesthetic voice or emotional impact.³⁹³

There are differing opinions on the copyright concerns of AI-generated works around the globe. According to US copyright rules, for a work to be protected, the author must be a human. This illustrates how US jurisprudence has placed a high value on human creation, while the UK system has attempted to expand the scope of copyright rules beyond the US system by accepting AI creative work for copyrighting, but the ownership dispute over

such work is still unresolved. India has narrowed the definition of "person" and adhered to the common view, much like the US. For example, in the case of *Rupendra v. Jivan Publishing House*³⁹⁴, it was emphasised that the author of the work must be a natural person for it to be accepted for copyright. In the related case, CBSE declared that an AI could not claim copyrights because it is an artificial person and cannot have copyrights.

Numerous experts concur that algorithms and artificial intelligence (AI) have to be "ethical by design," meaning they should be developed in a way that ensures the protection of individuals' fundamental rights and keeps them out of potential harm and liability. These principles are:

- a. Explaining ability
- b. Fairness
- c. Accountability
- d. Openness

The idea of responsibility has significant relevance in ensuring the provision of mechanisms to address the negative consequences algorithmic systems may have on individuals or society as a whole, as well as assigning accountability for the prompt resolution of these issues.³⁹⁵

Agencies have attempted to regulate AI in recent years; in the UK, lawmakers have not ruled out the prospect of regulating beyond the Online Safety Bill, but they are not actively contemplating it.³⁹⁶ New AI regulations have been suggested by China, the USA, and the EU. The EU AI Act should include a special provision for the creative arts, according to artist groups. This part should include protections that mandate that owners of intellectual property grant clear and informed consent before AI

³⁹² PH Manolakev, 'Works Generated by AI – How Artificial Intelligence Challenges Our Perceptions of Authorship' (*Master Thesis, Tilburg University*, 2017) 38.

³⁹³ Matt Savare et al., "The copyright conundrum – protection for AI works" (*Thomson Reuters*, November 2023) <<https://www.reuters.com/legal/legalindustry/copyright-conundrum-protection-ai-works-2023-11-28/>> Accessed 6 April 2024.

³⁹⁴ *Rupendra Kashyap v. Jivan Publishing House Pvt. Ltd.*, 1996 (38) DRJ 81.

³⁹⁵ David Leslie et al., [2018] "Human Rights, Democracy, and the Rule of Law Assurance Framework for AI Systems: A Proposal" (*The Alan Turing Institute*) 341.

³⁹⁶ Rt Hon Nadine Dorries MP, "Establishing a pro-innovation approach to regulating AI" [2022] *Department for Digital, Culture, Media and Sport, Government of UK*.

tools may utilise their creations. AI rights, principles, and guidelines are put out by some nations and international organisations for the creation of AI applications. Public engagement and oversight are seen as crucial steps in defending human rights.³⁹⁷

Conclusion

In summary, the effects of artificial intelligence (AI) on copyright and creativity are a complicated and developing topic that needs to be given more thought and attention. The creative industries are changing in many ways, from music composition to painting, thanks to the emergence of AI-driven autonomous technology. By facilitating the development of generative art, artificial intelligence (AI) technologies such as ChatGPT, Google Gemini, Perplexity AI, Midjourney, DALL-E 2, Stable Diffusion, and Stability AI have had a sense of impact on the growing society at large and along with that helped in the promotion of many artistic works.

The reliability and acceptability of these new technologies are threatened by the numerous ethical and legal ramifications. However, when utilised responsibly, generative AI technologies have the potential to create new forms of artistic expression in addition to improving the work of artists. Artists desire control over how much they participate in the medium and the protection of creative rights, but they do not want this expanding genre of tools outlawed. Instead, they acknowledge its potential. Their main concerns include protecting what they consider to be significant facets of human creativity and having confidence that impending technological storms from AI won't destroy or render obsolete these qualities.

The development and application of AI technology must consider the values of justice, accountability, and transparency to successfully navigate these difficulties. Legal frameworks, public participation, and ethical AI

design are crucial for guaranteeing that AI upholds copyright rules while encouraging originality and creativity. In the end, there are advantages and disadvantages to the nexus between creativity and AI. It's becoming more and more crucial to find a balance between welcoming technical breakthroughs and defending the rights and expressions of human artists as AI's involvement in the creative process develops. To promote a future where AI and human innovation can live and flourish, this equilibrium is essential.

References

1. B.J. Copeland, "Artificial intelligence" (Encyclopaedia Britannica online ed., on 10 June 2020) <<https://www.britannica.com/technology/artificial-intelligence>> Accessed 5 April 2024
2. AM Piskopani et al., "Responsible AI and the Arts: The Ethical and Legal Implications of AI in the Arts and Creative Industries" (Association for Computing Machinery, New York, NY, United States, July 2023)
3. Jack Evans "Man or machine?: Is this Australia's most controversial photo?" (news.com.au, 3 February 2023) <www.news.com.au/technology/gadgets/cameras/man-or-machine-is-this-australias-most-controversial-photo> Accessed 5 April 2024
4. WIPO, "What is Intellectual Property?" (WIPO, n.d.) <<https://www.wipo.int/about-ip/en/>> Accessed 5 April 2024
5. "Copyright" Oxford Reference Dictionary (Oxford University Press, n.d.) <<https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095638225>> Accessed 5 April 2024
6. Frank Thadeusz "The real reason for Germany's Industrial Expansion?" (Spiegel International, 2010) <<https://www.spiegel.de/international/ze>

³⁹⁷ European Parliament, "Call for Safeguards Around Generative AI" (*Diskurs*, April 2023) <<https://urheber.info/diskurs/call-for-safeguards-around-generative-ai>> Accessed 7 April 2024.

- itgeist/no-copyright-law-the-real-reason-for-germany-s-industrial-expansion-a-710976.html> Accessed 5 April 2024
7. Jatindra Kumar Das, "Law of Copyright" [2021] PHI Learning Pvt. Ltd. (2) 720
 8. Dr Raghvendra GR "A Brief History of Evolution and Development of the Copyright Law of India" (LinkedIn, June 2023) <<https://www.linkedin.com/pulse/brief-history-evolution-development-copyright-law-india-gr>> Accessed 5 April 2024
 9. Holy Faith International Pvt. Ltd. vs Dr Shiv K. Kumar [2006] (33) PTC 456 (AP)
 10. Eastern Book Company & Ors vs D.B. Modak & Anr [2008] (36) PTC 1 (SC)
 11. James Vincent, "What counts as artificially intelligent? AI and deep learning, explained" (The Verge, February 2016) <<https://www.theverge.com/2016/2/29/11133682/deep-learning-ai-explained-machine-learning>> Accessed 5 April 2024
 12. "Artificial Intelligence" (Black's Legal Dictionary 2nd Ed. and the Law Library, n.d.) <<https://thelawdictionary.org/?s=Artificial+Intelligence+>> Accessed 5 April 2024
 13. Pennachin, C.; Goertzel, B. (2007). "Contemporary Approaches to Artificial General Intelligence". Artificial General Intelligence. (Cognitive Technologies. Berlin, Heidelberg: Springer) pg. 1–30
 14. Newell, J. C. Shaw, and H. A. Simon, "Empirical Explorations with the Logic Theory Machine: A Case Study in Heuristics" (Proceedings of the Western Joint Computer Conference) 15 (1957), 218–39
 15. B.J. Copeland, "Alan Turing and the Beginning of AI" Artificial Intelligence (Britannica, n.d.) <<https://www.britannica.com/technology/artificial-intelligence/Alan-Turing-and-the-beginning-of-AI>> Accessed 5 April 2024
 16. Megan Garber, "When PARRY Met ELIZA: A Ridiculous Chatbot Conversation From 1972" (The Atlantic, June 2014) <<https://www.theatlantic.com/technology/archive/2014/06/when-parry-met-eliza-a-ridiculous-chatbot-conversation-from-1972/372428/>> Accessed 5 April 2024
 17. B.J. Copeland, "Alan Turing and the Beginning of AI" Artificial Intelligence (Britannica, n.d.) <<https://www.britannica.com/technology/artificial-intelligence/Alan-Turing-and-the-beginning-of-AI>> Accessed 5 April 2024
 18. Gerald Spindler, "Copyright Law and Artificial Intelligence" (Computer Law and Security Review) (27)(6) 1049
 19. Andres Fortino, "Embracing Creativity: How AI can enhance the Creative Process" (New York University, 2023) <<https://www.sps.nyu.edu/homepage/embracing-creativity-how-ai-can-enhance-the-creative-process.html>> Accessed 6 April 2024
 20. Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340 (1991)
 21. Section 13 of the Copyright Act, 1957
 22. Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340 (1991)
 23. Section 52 of the Copyright Act, 1957
 24. Section 107 of the Copyright Act, 1976 of the United States
 25. Madhuri Rewari, Shree Misra, "Generative AI and fair use/fair dealing" (AsiaIP, August 2023)

- <asiaiplaw.com/article/generative-ai-and-fair-use/fair-dealing> Accessed 6 April 2024
26. Getty Images (US), inc., v. Stability AI, Ltd. and Stability AI, Inc., 1:23-cv-00135-GBW
27. Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" (Lulu Press, 2021) 7
28. Matt Savare et al., "The copyright conundrum – protection for AI works" (Thomson Reuters, November 2023) <<https://www.reuters.com/legal/legalindustry/copyright-conundrum-protection-ai-works-2023-11-28/>> Accessed 6 April 2024
29. Vittoria Benzine, "'A.I. Should Exclude Living Artists From Its Database,' Says One Painter Whose Works Were Used to Fuel Image Generators" (artnet, September 2022) <<https://news.artnet.com/art-world/a-i-should-exclude-living-artists-from-its-database-says-one-painter-whose-works-were-used-to-fuel-image-generators-2178352>> Accessed 6 April 2024
30. Andersen and Anr. v. Stability AI Ltd., 3:23-cv-00201, (N.D. Cal.)
31. AM Piskopani et al., "Responsible AI and the Arts: The Ethical and Legal Implications of AI in the Arts and Creative Industries" (Association for Computing Machinery, New York, NY, United States, July 2023)
32. Benj Edwards, "Artist finds private medical record photos in popular AI training data set" (arstechnica, 2022) <<https://arstechnica.com/information-technology/2022/09/artist-finds-private-medical-record-photos-in-popular-ai-training-data-set/>> Accessed 6 April 2024
33. PH Manolakev, 'Works Generated by AI – How Artificial Intelligence Challenges Our Perceptions of Authorship' (Master Thesis, Tilburg University, 2017) 38
34. Matt Savare et al., "The copyright conundrum – protection for AI works" (Thomson Reuters, November 2023) <<https://www.reuters.com/legal/legalindustry/copyright-conundrum-protection-ai-works-2023-11-28/>> Accessed 6 April 2024
35. Rupendra Kashyap v. Jiwan Publishing House Pvt. Ltd., 1996 (38) DRJ 81
36. David Leslie et al., [2018] "Human Rights, Democracy, and the Rule of Law Assurance Framework for AI Systems: A Proposal" (The Alan Turing Institute) 341
37. Rt Hon Nadine Dorries MP, "Establishing a pro-innovation approach to regulating AI" [2022] Department for Digital, Culture, Media and Sport, Government of UK
38. European Parliament, "Call for Safeguards Around Generative AI" (Diskurs, April 2023) <<https://urheber.info/diskurs/call-for-safeguards-around-generative-ai>> Accessed 7 April 2024