Business, Management and Economics Engineering
ISSN: 2669-2481 / eISSN: 2669-249X
2024 Volume 22 Issue 01

NAVIGATING COPYRIGHT INFRINGEMENT ON GENERATING ARTIFICIAL INTELLIGENCE AND OWNERSHIP

[1]Yagyaseni Bareth, [2]Dr. E. Prema,[3]S. Suganya
[1]Asistant Professor, Gujarat National Law University, Silvasa Campus, ybareth@gnlus.ac.in
[2]Associate Professor & Assistant Dean, VIT School of Law, Chennai, prema.e@vit.ac.in
[3]Research Scholar, VIT School of Law, Chennai Campus. suganya.s2019@vitstudent.ac.in

ABSTRACT

The degree of freedom of movement when choosing the ability to produce autonomous work is not new, especially given the growing capabilities and diversity of artificial intelligence (AI) technologies. Systems with AI are imaginative, unpredictable, self-reliant, autonomous, logical, evolving, information-gathering, communicative, efficient, accurate, and available from a menu of options. As more people have access to AI-powered creative tools, the issue of protecting the originality of AI-generated work has surfaced. Copyright nerds are more concerned about authorship, while artists are more concerned about copyright infringement. As a result, questions have been raised about the validity of works protected by copyright law. In this article, we discuss ownership and liability issues related to copyright in works created by AI systems. This article discusses who should be entitled to the benefits of copyright protection and who should bear the costs of any rights infringement or damage that may arise from the use of autonomous systems to generate creative works. The same themes are consistently emphasized in music and art. This article attempts to analyze potential violations of the use of AI technology within the Indian legal framework, inspired by the positions taken by countries around the world to incorporate AI technology into their legal systems. Copyright law and its relevance, as well as the viability of protecting AI technologies, are still hotly debated topics. For the purposes of this article, it is important to emphasize that the term "artificial intelligence" is used in a general sense and that the authors plan to discuss specific types of AI. The authors explore the potential for synergy between AI and copyright law, including examples from the traditional copyright law of different countries.

Keywords: *Artificial Intelligence, Copyright, Fairuse Doctrine, Infringement, Originality, Technology.*

I. INTRODUCTION

In 1956, John McCarthy coined the term "artificial intelligence" (AI) to describe a new type of technology that can mimic the human brain.[1] The goal of AI is to prove that machines are as smart as humans by giving them the ability to learn and make decisions just like us. Arthur Samuel developed with the idea of machine learning in 1959. AI is a branch of computer science that allows computers to learn from large datasets and make predictions with little

[1] Dr. Rupen Chatterjee, 'Fundamental Concepts of Artificial Intelligence and its Applications,' Journal of Mathematical Problems, Equations and Statistics, 1(2), 13-24, (2020)

human intervention. AI-based innovations such as IBM Deep Blue, Kismet, Dragon Systems, and Alpha Go followed the development of "logic theorists" in the 1980s. The use of artificial intelligence has expanded rapidly in recent years, especially in technology fields such as medicine and aerospace. "The Next Rembrandt," generated by collecting and analysing a large collection of Rembrandt's works, and Google's "Deep Dream Generator," which helps generate paintings by merging paintings with uploaded images in minutes, are both examples. AI can make extensive use of data.[2] AI has come a long way in both non-expressive and expressive use. Over time, AI is expected to produce expressive works comparable to copyrighted works, including books, prose, and poetry (Tushnet, 2004).

Arend Hintze divided AI into four distinct groups.[3] First, there are "reactive machines" that have no memory and no experience. They can only react to their findings. IBM's "Deep Blue," a chess-playing machine programmed to compete with human players, is an example of a reaction machine. The second concept is called "limited memory," which is responsible for collecting information and remembering parts of it. By analysing past events, AI can generate new insights. For example, the data used by self-driving cars are pre-programmed (Tushnet, 2004). Self-driving cars also collect information about where they are parked and where they are going so they can respond appropriately to their environment. The third type of artificial intelligence is called "theory of mind," and its goal is to simulate the human mind. Not only is there no such AI system in operation, even the world's most popular AI robot, "Sophia," cannot fully understand human emotions and the fourth type is a very complex and advanced system in which a "self-awareness" machine has the same level of consciousness as a human.

II. Background And Overview Of Artificial Intelligence

Building the "intelligence" of computers, or the ability to mimic human intelligence, is the focus of AI research.[4] Technical tasks, such as finding the best math answers, and cognitive tasks once thought to be unique to the human brain, such as understanding natural language, are within the capabilities of intelligent organisms. This note narrows the focus to one specific topic of AI research: machine learning. Machine learning allows AI to automatically infer patterns from large amounts of data without being explicitly trained to deliver the desired results. An AI program uses machine learning, where it receives feedback and makes changes to its underlying algorithm, to improve upon a certain task.

Both supervised and unsupervised training can provide valuable feedback for AI programs to improve over time. In supervised learning, the AI receives a set of input-output pairs, such as a set of photos of flowers, each labeled "flower," and uses them to train itself. Next, AI builds a map that precisely maps the input photos to the final labels. AI quickly modifies its algorithm to generate an output that is as close as possible to the correct output label (in this case, the flower), since it has access to the previously labeled target output value (here, the flower). In unsupervised learning, AI makes observations on input data without any

---

[2] Andres Guadamuz, 'Artificial Intelligence and Copyright,' WIPO Magazine, 5, (2017). Available at https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html. Accessed on 23 December 2023.

[3] Arend Hintze, 'Understanding the Four Types of AI, from Reactive Robots to Self- Aware Beings,' Available at https://theconversation.com/understanding-the-four-types-of-ai-from-reactive-robots-to-self-aware-beings-67616, Accessed on 24 December 2023.

[4] Yongjun Xu, et al., 'Artificial Intelligence: A Powerful Paradigm for Scientific Research,' The Innovation, 2(4), 1-20, (2021).

labels or other guidance. Instead, AI iteratively improves its algorithm by comparing it to past performance (Keenan-O'Malley, 2023).

"Artificial intelligence" refers to a set of methods or protocols designed to enable computers to mimic human intelligence.[5] Early computer scientists proposed the use of symbolic abstraction and deductive reasoning to model AI. For example, pioneering programmers adopted techniques from the field to build software that used heuristics (or "rules of thumb") to accomplish tasks such as navigating a maze. On the other hand, many other AI ideas have never been built because the computer equipment needed was too expensive or too hard to build (Sag, 2023). Today, machine learning forms the basis of almost all AI approaches. For a task, machine learning employs algorithms that "learn" and improve over time. With these algorithms, AI can determine out how to perform a job done without explicit instructions. Because the programmer only sees the inputs and outputs, the AI learning process is seen as a "black box."[6]

The process of teaching an AI to recognise pictures of cats is an example of machine learning. First, AI can be used to show a large number of cat pictures. The code structure of AI is a neural network, or collection of interconnected nodes, all of which work together to analyze parts of an image. The nodes of the network can focus on different tasks; for example, some can analyse the color and brightness gradients between adjacent pixels, while others can cooperatively locate the boundaries of an image. The location of repeated shapes (such as a cat's nose) and their interrelationships are the subject of analysis by other nodes (such as a cat's eyes). The AI might gradually build a cat's face from the many parts it learned as it repeats the instructions.[7]

Initially, AI learned slowly and painfully because he was not told which aspects of the cat to prioritize. However, after being exposed to thousands of cat images, the AI was able to "learn" the cat's characteristics and develop new cat faces on its own. Making movie trailers and newsreels are just two other examples of how machine learning can be used. Specifically, certain AI aims to change its code to make it more efficient. The movie is set in a bleak future when machines are programmed to kill humans, and when people hear this, they immediately come to mind. That being said, AI is not like the robots you see on film or TV, at least not in the sense that this article focuses on. Pop culture's AIs are smart, but real-life AIs are not. Subjective sensations, perceptions, and experiences are all components of perception. Both learning and the ability to choose whether to act on learning are components of perception. Let us take the example of the robot Bender from the TV show Futurama and see how it works. As a sentient being, the Bender is no match for AI today. Due to his free will, Bender can harm humans, even if it goes against his programming. A Bender may learn new tricks, but his or her sentience allows him or her to choose not to, if he or she does not want to (Borghi, & Karapapa, 2011).

[5] Steve J. Bickley, et al., 'Artificial Intelligence in the field of Economics,' Scientometrics, 127, 2055-2084, (2022).
[6] Taye, M.M. Understanding of Machine Learning with Deep Learning: Architectures, Workflow, Applications and Future Directions. Computers2023,12,91. https://doi.org/10.3390/computers12050091.
[7] Shubham Kumar, 'Age and Gender Detection,' Project Report of Capstone Project 2, Artificial Neural Networks, Page no.13.

Because they still need a set of instructions to learn a new task, even today's Ayr lacks free will. They have some leeway in the methods they use to achieve their goals, but are ultimately limited by their basic programming. AI shows no shrewdness or judgment in its analysis; instead, it simply follows the parameters set by its programmers and produces results. While it is impressive that AI can "learn," AI lacks the freedom to choose whether or not to execute its instructions. AI programmes are also limited in functionality and cannot perform activities beyond their area of expertise. As such, it may take quite a while for Al to achieve the same level of sophistication as the robots seen in the media. First, before addressing the issue of infringement, it is important to understand how other components of copyright law relate to the works created by AI. subsections explain the basics of copyrightability. If it is assumed that AI-generated works can be protected by intellectual property rights, this section investigates possible claimants to those rights.

III. Legal Status of Artificial Intelligence Generated Work

One writer argued that Al should be considered a company. This seems to be like the next natural step, considering that Saudi Arabia granted citizenship to the world's first AI robot in October 2017.[8] A company can be a natural person or a legally recognized entity. If the projects developed by Al are considered as companies, ownership of their, such as copyrights trademarks, and patents is possible.[9]

However, since shareholders are ultimately responsible for the company's assets, this does not address the issue of assigning liability. All AI shareholder companies will be fully protected and no legal action will be taken against the company. Businesses that use AI will also become owners of AI companies that use AI. Both parties will be immune to legal action. The implications of this for overcoming the corporate veil and minimum capital requirements for AI companies are beyond the scope of this article, but the subject is still relevant. In short, aluminium is not a business, but rather an agent of a product or principle, and should be handled as such (Lee, 2010).

Since Al is not a human being and is not considered a separate legal entity, they have no intellectual property rights over their products. According to the Copyright Act, "copyright Protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[10]

For copyright protection, an item must meet three requirements:

(1) be original: For a work to be considered original, it must (a) be created without any outside influence and (b) be conceived in a unique way by the author. The work is created without the help of any external resources, which is what we call "independent." An original work is a work without plagiarism. The responsibility for proving the originality of the work rests entirely on the shoulders of the author (Levendowski, 2018).

---

[8] Alistair Walshi, 'Saudi Arabia Grants Robot Citizenshio', Availabe at https://www.dw.com/en/saudi-arabia-grants-citizenship-to-robot-sophia/a-41150856. Accessed on 24 December 2023.

[9] Chesterman, S. (2020), 'Artificial Intelligence and the Limits of Legal Personality, International & Comparative Law Quarterly, 69 (4), 819- 844.

[10] Section 101(a) USC.

To qualify for copyright protection, a work must be original, meaning it must possess a minimal degree of creativity. This does not mean the work has to be ground-breaking or revolutionary, but it should reflect some creative choices made by the author. Works that are merely factual or lack originality may not be eligible for copyright protection. Feist Publications, Inc., v. Rural Telephone Service Co. (1991): The Supreme Court ruled that factual information alone is not subject to copyright protection; there must be some creative element or originality in the selection or arrangement of the facts.[11]

In the 1884 Burrow Giles Lithographic Co. v Sarony, the court held that "Intellectual production, of thought, and conception on the part of the author" must be proven for an author to successfully sue for copyright infringement.[12] In the 1903 case of Bleistein v Donaldson Lithographic Co.,[13] the court of appeals held that that the circus advertisement posters at issue were not copyrightable because they were advertisements, and therefore did not serve the function of promoting useful arts. These foundational cases help show why current copyright laws do not protect works not authored by humans. In each of these cases, the court's definition of originality emerges as requiring traits that are uniquely human: personal, intellectual conception (Palermo, 2024).

(2) be the author's work: Copyright law recognizes the attribution rights of both authors as long as the relevant work is independently developed by each author. As required by creativity, only an original idea is needed. The work doesn't have to be ground breaking, but it can't be "mechanical or monotonous enough to not require any creativity." For example, the alphabetical list of works is not original because they are not particularly creative. Likewise, if you compile a portfolio and list the pages in order, that won't earn you any copyright protection either. Because the originality bar under copyright law is so low, the vast majority of works qualify.

(3) The work must be be permanently fixed in tangible medium of expression, meaning that it must be recorded or somehow captured in a form that others can perceive, reproduce, or communicate. This can include writing, painting, recording, or saving a digital file. Ideas, concepts, or thoughts alone are not eligible for copyright protection; it is the expression of those ideas in a tangible form that qualifies (Sag, 2023).

Baker v. Selden, in this case court highlighted the principle that copyright protects the expression of an idea, not the idea itself. The court stated that a system or method of operation, even if described in copyrighted work, is not protected by copyright.[14] Harper & Row, Publishers, Inc. v. Nation Enterprises,[15] in this case court emphasizes the importance of the right to control the first public appearance of a work. It underscores the "fixed in a tangible medium of expression" requirement by affirming the copyright holder's exclusive right to control the first publication of their work.

These fundamental requirements apply to various types of creative works, including literature, music, visual arts, and more. Once a work meets these criteria, the copyright is automatically granted to the creator upon creation, and registration with a copyright office is

[11] 499 U.S. 340 (1991).
[12] 111 U.S. 53 (1884).
[13] 188 U.S. 239 (1903).
[14] 101 U.S. 99 (1879).
[15] 471 U.S 539 (1985).

not required for protection. However, registering a work with a copyright office can provide additional benefits, such as the ability to sue for statutory damages and attorney fees in case of infringement (Zack, 2020). We say that a work of art has been "fixed" in a physical medium of expression when it is "stable enough to be perceived, reproduced, or communicated over a period of time exceeding a brief length of time." The Copyright Act requires a broad interpretation of the term "tangible medium" as it includes any medium "now known or later developed" and is sufficient if the work can be "perceived, copied or otherwise transmitted" to restore "work," whether by human means or with the aid of machines or equipment (Borghi, & Karapapa, 2011).

Literary work are usually kept on paper, photographic images are kept on film, and computer programs are kept in read-only memory. For purposes of copyright protection, if and only if Al satisfies the fixation requirement when the work it produces is it recorded on some physical medium. Anyone who creates or develops a work governed by copyright law is considered the author of that work. A protected work must have a human author to qualify for copyright status. If the animal is not considered human, it does not matter whether it meets all the other copyright requirements.

Consider the famous Naruto v. Slater[16] case, also known as the "Monkey Selfie Copyright Battle." A man named David Slater abandoned his camera in a nature reserve on the Indonesian island of Sulawesi. Naruto is a crested macaque who learned how to use a camera and started taking pictures of himself. Slater took the images and then produced a book describing Naruto's selfie as "taking a picture of yourself while standing in front of a mirror smiling. Surely that's a sign of self-awareness?" Since animals aren't human, the Ninth Circuit appeals court ruled that Naruto's lawsuit did not expressly make claims under the Copyright Act and that the court lacked subject matter jurisdiction under Article III of the U.S.[17] Constitution. When asked how it would rule if Naruto was a pet and therefore became someone's property, the court said nothing. Al cannot claim copyright ownership because they are not considered authors because they are not human or even legal persons (such as businesses).

Although there is no precedent for the treatment of Love Al under copyright law, it is doubtful that Al will receive copyright protection given that only human authors now receive such protection. Again, the Bender is unlikely to claim authorship of anything he does due to copyright restrictions. For example, in the thirteenth episode of season three, titled "Bendin' in the Wind," Bender collaborated with musician Beck to develop and perform original music. Just because Bender isn't human doesn't mean he gets the copyright to his own music under the Copyright Act, no matter how human-like or smart he is. Sentient AI and copyright issues are too big for this article to cover, so they will not be talked about anymore.

IV. Copyright Infringement and Fair Use

Infringement occurs when others use others' copyrights without permission. To prove infringement, copyright holders must prove that the infringer copied their work and that the

[16] No. 16-15469 (9th Cir. 2018).
[17] Constitution of the United States, Constitution Annotated Analysis and Interpretation of the U.S. Constitution, Available at https://constitution.congress.gov/constitution/article-3/., Accessed on 12 December 2023.

copied work is substantially similar to the original. To prove reproduction, the similarities between the two works do not have to be large or include the plaintiff's protected parts.

To prove infringement, the copyright owner must meet the "preponderance of evidence" standard. To prevail in an infringement claim, the plaintiff must prove (1) that she owns a valid copyright in her work, (2) that the defendant has reproduced the original elements of the work without authorization, and (3) That reproduction is material and constitutes a violation of statutory exclusive rights ("improper or unlawful occupation"). The analysis is performed without considering possible intent. Therefore, a defendant may be held liable even if he honestly believes that he does not infringe if the infringement element is met. On the other hand, even if a defendant is meant to do something wrong, they may not have to pay if these claims are not proven (Beebe, 2008).

If the plaintiff can provide valid evidence of copyright registration, it can be established that copyright exists in the work, which is the first element of infringement. The second requirement is to prove that the defendant reproduced the plaintiff's original work and that the reproduced material is an expression rather than a concept. Third, there must be considerable similarity between the works, which means that a reasonable person would come to the same conclusion as the plaintiff that the copied material is similar to the original material. Plaintiffs often rely on circumstantial evidence to prove infringement when there is no direct evidence, such as when they demonstrate (a) that the defendant has access to the copyright owner's work and (b) a high degree of similarity between the copied work and the original work (Levendowski, 2018).

There are two possible neural network-based machine learning scenarios in which copyright infringement allegations can be brought against AI-generated works. In the first infringement scenario, a claim may arise from an engineer assembling a digital corpus of training data in which a selected copyrighted work is digitized and/or reproduced without the copyright owner's authorization, thereby infringing on the copyright owner's rights to proprietary rights. reproduction. This dispute can be resolved with a simple infringement analysis; if the plaintiff can show that the defendant has unlawfully copied the plaintiff's work, the defendant will be liable for infringement unless the defendant can show that it did not know it was doing so (Beebe, 2008).

Copyright owners may take the extra precaution of registering with the U.S. Copyright Office, which requires a registration fee of $55.00 and a description of the relevant work. Original authors who have suffered copyright infringement are entitled to seek injunctions against the infringing party, seizure and disposal of the infringing work, monetary damages, costs, and attorneys' fees. Those who knowingly infringe upon copyright may also face criminal penalties.

An infringer can use an affirmative defense under the Copyright Act. For example, the fair use doctrine permits the use of copyrighted works for the purposes of criticism, comment, reporting, teaching, scholarship, and research. This makes sense since the activities on the list are meant to help people think creatively and freely. However, the Copyright Act does not prescribe the consequences of Al's infringement. It is impossible to file a lawsuit against Al because they have no copyright on any of the above products. The second circuit case in the

Cartoon Network LLP, v. CSC Holdings, Inc.,[18] distinguishes between "directly giving an order to the system, which automatically obeys the order and does not engage in any act of will" and "willingly operating a replication system to reproduce."

One of the earliest cases that considered whether the physical representation of digitally received content was sufficiently fixed in the medium to constitute a copy was the 1993 Ninth Circuit decision of MAI Systems Corp. v. Peak Computer, Inc.,[19] MAI Systems Litigation is an IT company that sells software licenses to businesses and individuals. The MAI computer repairs and maintenance were outsourced to the Defendant Peak. As part of the service, peak technicians will install MAI programs into the random access memory (RAM) of the customer's computer prior to commencing any repairs. Under the terms of the license, MAI's customers are allowed to use the program (and thus be allowed to store the software in thr RAM), but this does not apply to other parties such as Peak. The company argued that the RAM downloaded by Peak violated MAI's copyright.

The MAI Systems court upheld the lower court's finding that "transferring software from a permanent storage medium to a computer's RAM" or central processing unit (CPU) constitutes copyright infringement if the transfer is made without the express authorization of the owner or licensee. carried out under these circumstances. This means that in the Ninth Circuit, putting a copy of software into a computer's RAM without the right license is enough proof that a copy was made without permission.

Years later, the Seventh Circuit reached the same conclusion in NLFC, Inc. v. Devcom, MidAmerica, Inc.,[20] which was ruled three years later by Washington, D.C. Circuit, who reached the same conclusion. As long as the image remains on the computer, a copyrighted image downloaded to a computer will be considered an infringing copy by the courts using the 7th, 9th, and DC circuit fixed standards. For the CNN to process the underlying data patterns, large amounts of input data are temporarily held in the computer's memory and may be copied and destroyed multiple times. Therefore, in these cases, the development of these temporary intermediate reproductions by CNNs would certainly constitute a copy of the copyright infringement claim.

CoStar Group, Inc. v. LoopNet, Inc.[21] is an example from the Fourth Circuit Court of Appeals. In this case, CoStar is the plaintiff and claims to have a vast online database of residential photos provided to real estate agents for use with proper attribution. Multiple copyrighted photos of CoStar were uploaded to the defendants' real estate listing site LoopNet without the company's knowledge or consent. Although LoopNet never publishes any copyrighted images, it is a company policy in which LoopNet employees download all photos posted by subscribers to ensure that they comply with the company's content policies. After review, the staff removed the downloaded photos of the house. After LoopNet, CoStar sued LoopNet for violating its copyright, allowing users to steal photos from CoStar's website.

In Waits v. Frito-Lay, Inc.,[22] a professional singer and songwriter sued the company for an advertisement that used an impostor's voice very similar to Waits' voice. Even though the

[18] 536 F. 3d 121 (2nd Cir., 2008).
[19] 991 F. 2d 511 (9th Cir. 1993).
[20] 45 F. 3d (7th Cir. 1995).
[21] 373 F. 3d 544.
[22] 978 F. 2d 1093.

defendants copied Waits' voice in style and tone, it was decided that Waits did not have a good case against Frito-Lay for copyright infringement. When the original vocals are not used and permission to play the original music is obtained, the court finds that copyright infringement is less likely. Such was the case in Sinatra v. Goodyear Tire Rubber Co,[23] in which Nancy Sinatra sued the tyre company for using her song "These Boots Are Made for Walking" in an advertisement. In their ad, Goodyear Tires had an unidentified singer perform a song they had licensed from the copyright owner. The court ruled that Sinatra had no claims of copyright infringement because, despite similarities in lyrics, melody, and composition, the voice in the ad was not Sinatra's voice, and Goodyear Tires went to great lengths to obtain permission to use the original song.

The intentional reproduction of another person's likeness is likely to result in a court finding that the right of publicity is infringed upon. Singer Bette Midler claimed that Ford Motor Company violated her publicity rights by using a voice similar to her in Midler v. Ford Motor Company.[24] A voice that was not her own. In addition, the court said, "Ford paid the copyright owner enormous fees to license the song." However, the court sided with Midler because Ford knowingly used a singer similar to Midler and instructed her to sound as much like Midler as possible to promote their product. As long as the copied similarities are well known and intentionally copied, the copied party can sue the other for violating its right to publicity.

Aggrieved parties can seek compensation through a right to publicity claim even if they sign a partial likeness in a written agreement. Facenda v. N.F.L. Films, Inc.[25] is a good example because Facenda worked with N.F.L. Films, providing narration for several of their films. Football fans often refer to Facenda as the "Voice of God" because of their unique voice. Facenda had signed a standard distribution contract prior to his death, granting N.F.L. Films "an express right to use the audio and video film sequences or any part thereof that I filmed," with the caveat that such use would not be construed as an endorsement of any product. The Facenda property filed a right of publicity complaint against the N.F.L. The company released a video game that falsely suggested the Facenda's endorsement of the product by using an audio clip of his recorded voice. The movie was subsequently released. Facenda did not waive his right to make a false endorsement claim, so the court ruled that his estate could take legal action in that capacity. This has far-reaching ramifications, as disclosure rights requirements can help people use AI (Keenan-O'Malley, 2023)..

A panel of the Fourth Circuit Court of Appeals upheld the district court's decision to grant LoopNet summary judgment. In this case, LoopNet was found not to be guilty of direct infringement because it was presumed that its users' actions prompted "ad hoc, automatic responses to user requests," in which case images were downloaded to LoopNet's RAM regardless of their content. According to the court, 17 U.S.C. 106 implied a "consensual act" requirement for the alleged tort, meaning that the defendant must know what she did but not whether she infringed. The Second Circuit Court of Appeals ruled in Cartoon Network LLP that 1.2 seconds of downloaded content was not stable enough to be considered a copy in an

[23] 435 F.2d 711.
[24] 849 F. 2d 469 (9th Cir. 1988).
[25] 542 F. 3d 1007 (3rd Cir. 2008).

audio-visual setting. In this case, the defendant, Cablevision Systems Corporation ("Cablevision"), was a cable television provider that also sold digital video recorders. Copyright content from providers such as the Plaintiff Cartoon Network can be recorded and viewed using DVR services without a separate license. The broadband media router (BMR) in the customer's home helps the DVR function by transferring some buffered media content to the BMR. At 1.2 seconds, the BMR sends the buffered stream back to Cablevision's data center until requested. In Cartoon Network's case, the 1.2-second clip was illegally copied, which is an infringement.[26]

V. Indian Legal Positions on Artificial Intelligence

The fast-growing AI industry has not been adequately overseen or regulated due to the lack of a comprehensive legislative framework. India's National Institute for Transformation (NITI) Aayog has acted by publishing a policy paper titled "National Artificial Intelligence Strategy" outlining the organization's plans to implement AI in five priority areas: Education, Healthcare, Smart Cities and Infrastructure, and Agriculture.[27] In addition, a committee headed by v. Kamkoti was established to advance AI research and development and establish a national AI mission.[28] The policy statement also requires the AI industry to adhere to the principles of self-regulation and openness, privacy, equality, security, inclusion, and accountability. However, thus far, it is unclear whether TDM and the use of data to train AI violate existing copyright rules.

For the first time in the country, an AI machine has been officially recognized as the coauthor of copyrighted work. According to its purported creator, the "Suryast" painting was made by the AI painting programme Raghav and its owner, intellectual property lawyer Mr. Ankit Sahni. Speaking to Digital Media, Mr. Sahni said the Copyright Office only accepted the application after both Sahni and Raghav's names were added as coauthors of the creative work.[29] Judging from the DABUS patents, we reviewed the Copyright Office of India ruling and took on new meaning. This is only the third intellectual property award to recognize AI as an author or coauthor of a work of art. This conclusion makes sense in light of the report from the parliamentary committee, which says that copyright and patent laws should be looked at again so that works made by AI can be protected.

Only truly original works are entitled to copyright protection, and most definitions of originality require a human author. In most countries, only works created by humans are eligible for copyright protection. India has engaged in a heated debate on how to properly incorporate artificial intelligence into the copyright system. The main goal of IP law is to protect works produced through the application of human intelligence. In the Indian sphere of

[26] The Cartoon Network LP, LLLP v. CSC Holdings, Inc., No. 07- 1480 (2d Cir. 2008).
[27] Niti Aayog, National Strategy for Artificial Intelligence # AIFORALL. June 2018., Available at https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf., Accessed on 12.02.2023.
[28] KTP Radhika, (2020)., 'Leading with AI: Professor V Kamakoti Chair of National AI Task Force,' Available at., https://indiaai.gov.in/article/leading-with-ai-professor-v-kamakoti-chair-of-national-ai-task-force., Accessed at 09 October 2023.
[29] Goving Kumar Chaturvedi (2023) 'AI Paintings: Registrable Copyright? Lessons from Ankit Sahni,' Available at https://www.iposgoode.ca/2023/03/a-i-paintings-registrable-copyright-lessons-from-ankit-sahni/., Accessed on 10 September 2023.

influence, it is the author's expression, not his concept, that is copyrighted. Specifically, Section 2(d)(vi) of the Copyright Act of 1957, which covers computer work, also defines a "creator" as the person "responsible for creating" the work. While this does not explicitly rule out the option of acknowledging nonhuman authors, it does remove any room for doing so. However, new forms of AI have transformed computer programmes into more than just a resource. It can now independently make broad judgments critical to the creative process (Palermo, 2024).

Laws protecting intellectual property can respond to creations with little participation in one of two ways. Computer-generated works can be denied copyright protection, or authorship of the work can be attributed to the programmer. However, giving authorship to the person who made the programme when the work was made entirely by AI is not the best thing to do for ethical reasons. Since the same concept underlies the granting of all types of intellectual property—recognizing human creations and protecting them from unfair exploitation by others—this decision by the Copyright Office of India is of interest to all IP lawyers (Vincent, 2022). Changes to the law were proposed in a parliamentary committee report. DABUS has been officially recognized as an inventor by two countries,[30] and AI has been officially recognized as a coauthor of works of art in India. These changes appear to have paved the way for a dramatic shift in how the law views AI. This could have profound implications for business and how we conceptualize rights, people, and responsibilities.

Section 42 of the Copyright Act discusses in great detail the type of use that is considered "fair" and therefore does not constitute an infringement of copyright. There is no explicit reference to TDM or AI education-related activities. However, since Section 52(1)(a) allows the use of literary works for private or personal use, such as research, commentary, or news reporting, it can be used to protect TDM activities. Copying current economic and political topics and storing electronic links with them is a fair game as long as the copyright owner does not prohibit it. According to Saregama India Ltd. & Ors., the arm's length principle does not protect commercial use. Saregama India Ltd. v. Alkesh Gupta and Ors. A. V. Wynk Music Ltd. is protected by Section 52 if it uses TDM for research and development that is not for profit.

VI. Judiciary Decisions on Copyright Infringement

In the Sandoval v. New Line Cinema Corp. case, the Court determined that the images "appear fleetingly and are obscured, severely out of focus, and virtually unidentifiable."[31] Furthermore, the Court declared that no fair use analysis was required and upheld the lower quantity of copyrighted content present in the film. It also excuses the use of images by citing the "de minimus" concept (Vincent, 2022). However, there are situations where this principle is considered inappropriate. For example, the Court ruled in Ringgold v. Black Entertainment Television, Inc., that using a copyrighted poster for 27 seconds as a background for the

[30] 'Meet DABUS: The Worls's First AI system to be awarded a Patent', Available at https://brandequity.economictimes.indiatimes.com/news/digital/meet-dabus-the-worlds-first-ai-system-to-be-awarded-a-patent/85149000., Accessed on 12 December 2023.
[31] 973 F. Supp. 409 (1997).

television show "Roc" did not constitute de minimis. In this context, one can cite an important British decision in Holman v. Johnson. According to the Court's ruling, "A person."[32]

In Super Cassettes Industries Ltd. v. Hamar Television Network Pvt.,[33] the Delhi High Court applied the same logic. It concluded that it is unethical to rely on copyright to suppress information that might clear a driver on a charge or lead to a driver under the influence charge. They were acquitted. Furthermore, the Court, in another UK decision, Green v Weston Feature Films,[34] rejected damages for copyright infringement where the nature of the work tended to be grossly immoral. Havells India Ltd. & Anr. v. Amritanshu Khaitan & Ors.,[35] The Delhi High Court held in this case that an advertisement must accurately and truthfully compare a product with its competitors and specify the specific qualities that make it distinctive to be valid under the fair use doctrine and Article 19 (Freedom of Speech and Expression).

In the case of Wiley Eastern Ltd. v. Indian Institute of Management,[36] According to the Delhi High Court judgment, "The basic purpose of Article 52 is to protect the freedom of expression under Article 19(1) of the Constitution of India – for research, private study of current affairs, Criticism or comment or reporting may be protected." Shemaroo Entertainment Limited v. News Nation Network Private Limited[37] - The plaintiff in this case, Shemaroo Entertainment, has a catalog of works that the Bombay High Court has prohibited the new channel "News Nation" from incorporating, recording, distributing, transmitting, broadcasting, disseminating, or publishing.[38]

In this case, the plaintiff sued the defendant for the use of its content despite an agreement between the parties that was later rescinded. In his defense, the defendant argued that he used the relevant content in reporting the news only with fair use and "minimum" principles in mind. He did so solely to report the news and not for personal or personal purposes—commercial exploitation of the plaintiff's work. The defendant further argued that its use was trivial, given that the footage at issue lasted less than one minute (Lee, E2010).

According to the Bombay High Court ruling in favor of the plaintiff, the defendant was not allowed to use the content after the plaintiff terminated the contract. The Court said that even if the defendants used only one minute of content, they were still guilty of copyright infringement, and it also noted that a simple quantitative study of the duration of the content would not significantly change the results. The defendant also offered no evidence in support of his claim that the materials were used in the company's regular course of news reporting. Super Cassettes Industries v. Mr. Chintamani Rao and Ors.,[39] In this case, the Delhi High Court held that judges should apply liberal standards while deciding which current affairs reports qualify as criticism or commentary. The Court also noted that under the concept of fair use, any transformative work would not be considered fair use and that the mere use of copyrighted work does not constitute unfair use.

[32] (1775) 1 Cowp. 341 at 343.
[33] 2011 PTC (45).
[34] (1916) 1 Ch. 261.
[35] 2015 (62) PTC 64 (Del).
[36] (01.02.1995 - DELHC): MANU/DE/0694/1995.
[37] 21705/ 2021 in COMIP(L) 434/2021 (Suit)
[38] IA (L) 21705/2021 in COMIP(L) 434/2021 (Suit).
[39] N.M (L) 197/2018 in C.S.I.P (L) 114/2018.

Tips Industries Limited v Wynk Ltd. & Ors., The Bombay High Court has ruled in this case that sharing someone else's catalog of copyrighted songs through OTT or music streaming services is not exempt from fair use or fair dealing laws, whether private or personal purpose use. In this case, the ruling stated that fair dealing does not apply to the sale or commercial lease of any copyrighted phonogram for the purpose of making money, even if the phonogram is used for research purposes or personal or private use.[40] In the case of Devendrakumar Ramchandra Dwivedi v. State of Gujarat and Ors.,[41] the Gujarat High Court was asked to decide whether the performance of music at festivals such as Navratri, Dandiya events, Garba shows, or other events requiring entry fees fell within the ambit of fair use. The Court ruled that in these cases, for-profit performances of music and other nontheatrical works generally failed within the scope of fair use and fair dealing. The main idea behind these principles is that live performances of these works are allowed when they are used for charitable, educational or religious purposes and not for any other reason, including profit or other purposes (Zack, 2020).

The Court further declared that under Section 52(1)(u)(za) of the Indian Copyright Act, 1957, music can be played during official government ceremonies, aarti, Navratri, marriage processions and other social events related to marriage. It is also acceptable to play music during these ceremonies because there is no hidden goal, no admission fee or process, no commercial purpose, and no intention to make a profit. In Oxford University Master Scholars v. Rameshwari Copying Services Ltd.,[42] the Delhi High Court held that the use of intellectual property for educational purposes does not amount to copyright infringement. The Court held that when copyrighted material from a textbook is reproduced for educational purposes, it can be distributed without prior consent from the publisher. In the case of Sony Corp. of America v. Universal City Studios, Inc.,[43] the US Supreme Court ruled that recording entire television programs for personal use (such as time-shifting) falls within fair use rules and does not infringe on copyright. The Court further declared that manufacturers of home movie recording equipment such as Betamax and other VCRs would not infringe on copyrights.

In the “Walt Disney v. Dudu Geva” case, the Israeli Supreme Court first examined the principles of fair use requirements through the creation of artist David Geva. At one point, Giva redesigned Walt Disney's iconic character, Donald Duck, giving him a Tempel hat and a ring of curls on his forehead, giving the character quintessentially Israeli features. The result was a character named "Moby Duck" that appeared in the book “The Duck Book.” Disney realized this and filed a copyright infringement lawsuit against Geva. Giwa argued that because he was impersonating Donald Duck, US law would allow him to use the character under the doctrine of fair use. The Court readily recognized the four elements of fair use under Section 107 of the US Act, and although the Court ruled in defeat, it established a precedent for fair use exclusion.[44]

[40] Divij Joshi., ‘High Court of Bombay Rules Against the Applicability of Compulsory Broadcast Licensing to Internet Services,’ Journal of Intellectual Property Law & Practice, 14(8), pp 594- 596.
[41] CWP No. 28758 of 2019 (O&M).
[42] 2016) 16 DRJ (SN) 678.
[43] 464 US 417 (1984).
[44] Shaul MitelPunkt (2022), ‘Duck Fights: Walt Disney Versus Dudu Geva and the Politics of Americanization in Late Twentieth – Century Israel,’ Journal of American Studies, 1- 20 (2022). https://doi.org/10.1017/S0021875822000093.

VII. CONCLUSION

While proposals to update copyright laws have been made, it may not be necessary to do so before using Al to create a work with specific copyright issues. The use of artificial intelligence to create art is a major technological leap, but its questionable application to copyright law casts a shadow over its bright future. Despite the challenges of managing copyright-related activities and potentially infringing applications, copyright enforcement on digital platforms has become increasingly feasible as technology advances. However, the research presented in this note suggests that teaching copyrighted material to artificial intelligence systems that make art may be legal or constitute fair use in some jurisdictions. Engineers should continue to make progress in computer science and technology because it is good for the public and the Constitution, and they can do that if they can use more copyrighted works in machine learning.

REFERENCES

[1] Beebe, B. (2008). An Empirical Study of U.S. Copyright Fair Use Opinions, 1978-2005. University of Pennsylvania Law Review, 156(3), 549–624.

[2] Borghi, M., & Karapapa, S. (2011). Non-Display Uses of Copyright Works: Google Books and Beyond. *Queen Mary Journal of Intellectual Property*, *1*(1), 21–52.

[3] Keenan-O'Malley, E. (2023, December 18). *"ai" and "copyright infringement."* AIPPI. https://www.aippi.org/news/ai-and-copyright-infringement-increasingly-feature-in-the-headlines-but-what-are-the-legal-issues-being-debated/ .

[4] Lee, E. (2010). Technological Fair Use, . Southern California Law Review, 83(797), 797–874.

[5] Levendowski, A. (2018). How Copyright Law Can Fix Artificial Intelligence's Implicit Bias Problem. Washington Law Review, 93(2), 579–630.

[6] Zack, N. (2020). Artificial Intelligence, Copyright, and Copyright infringement. 24 Marq. Intellectual. Property L. Rev. 24 (1): 15- 21.

[7] Palermo, F. (2024, January 18). *Fair use or foul play? the AI copyright quandary*. CMSWire.com. https://www.cmswire.com/digital-experience/ai-copyright-infringement-quandary-generative-ai-on-trial/ .

[8] Tushnet, R. (2004). Copy This Essay: How Fair Use Doctrine Harms Free Speech and How Copying Serves It. Georgetown Law Faculty Publications and Other Works. 114. 535-590.

[9] Sag, M. (2023). Copyright safety for generative AI. *Houston Law Review*, *61*(2), 295–347.

[10] Vincent, J. (2022, November 15). *The scary truth about AI copyright is nobody knows what will happen next*. The Verge. https://www.theverge.com/23444685/generative-ai-copyright-infringement-legal-fair-use-training-data.