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AI and Copyright: Navigating Legal Frontiers in the Age of Artificial Intelligence

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The landscape of copyright is evolving with the advancing technology. The rapid progress prompts intricate inquiries regarding authorship, ownership, and the protection of intellectual property rights. It underscores the imperative to modify existing copyright regulations to accommodate generated material, maintaining a delicate equilibrium between fostering innovation and safeguarding the rights of creators. Among the specific challenges addressed are the determination of copyright ownership in generated works, the complexities associated with autonomous authorship, and an examination of copyright policies across various nations. The exploration provides insight into legal frameworks for copyright protection, underscoring the necessity for legislative adjustments to contend with generated content. As works continue to proliferate, the narrative outlines challenges related to establishing originality, potential infringement concerns, and the intricate task of identifying copyright holders. It further explores the implications of recognizing contributors and assesses the legal standing in diverse jurisdictions. Moreover, the exploration outlines emerging solutions and policy recommendations, emphasizing the significance of proactive measures, ethical development, and robust legal safeguards to navigate the intricate landscape of copyright within the creative domain.

Keywords: *artificial intelligence, copyright, authorship, ownership, way forward.*

INTRODUCTION

In today's rapidly expanding world of artificial intelligence (AI), the distinction between human and machine-generated content is becoming increasingly blurred. The ability of AI to learn and mimic human styles from massive datasets raises serious concerns regarding copyright protection for works developed with minimal human involvement. Copyright laws have progressed beyond simply rewarding human skill and effort, demanding an exception for advanced AI-generated content. Determining who owns the copyright for AI-generated works has gotten more complicated, affecting creators, corporations, and users. Existing copyright legislation must be modified to accommodate the unique characteristics of AI-generated material. In this quickly changing market, striking a balance between encouraging innovation and protecting creators' rights is critical. This study intends to investigate and address the complicated issues raised by AI-generated works and the legal frameworks that surround them while preserving copyright's critical role in protecting original works.

The rise of artificial intelligence in content creation necessitates legal changes to create clear rules for authorship and ownership, ensuring adaptive copyright protection that balances the interests of producers and users. Analyzing the influence of AI on copyright protection, particularly the issues posed by AI-generated content is critical. Evaluating the effectiveness of present copyright law frameworks in accommodating the specific elements of AI in content creation is also crucial. To traverse the developing landscape and protect intellectual property rights, addressing challenges such as ownership determination and copyright eligibility in AI-generated works necessitates proactive legal measures.

DEFINITIONS

1. **Artificial Intelligence:** According to Merriam-Webster's Dictionary, artificial intelligence is 'the capability of computer systems or algorithms to imitate intelligent human

behaviour' or 'a branch of computer science dealing with the simulation of intelligent behaviour in computers.'[1]

A common definition of AI is that it is a technology that enables machines to imitate various complex human skills. This, however, does not give much to go on. It does no more than render the term 'artificial intelligence' in different words. In its strictest definition, AI stands for the imitation by computers of the intelligence inherent in humans. As long as those 'complex human skills' are not specified, it remains unclear exactly what AI is. The same applies to the definition of AI as the performance by computers of complex tasks in complex environments. High-Level Expert Group on Artificial Intelligence (AI HLEG) of the European Commission (EC) defines it as 'systems that display intelligent behaviour by analyzing their environment and taking actions—with some degree of autonomy—to achieve specific goals.'[2]

"*AI is concerned with methods of achieving goals in situations in which the information available has a certain complex character. The methods that have to be used are related to the problem presented by the situation and are similar whether the problem solver is human, a Martian, or a computer program.*" [3]

With the variety of separate opinions on what AI is, the lack of agreement on a standard evaluation (i.e., criteria, benchmark tests and milestones) makes it extremely challenging for the field to maintain healthy growth.[4]

AI is also considered a computer's ability to recognize patterns and take actions based on available data and statistical models. Artificial intelligence has shown superior performance in abundant fields, including voice (e.g., Amazon's Alexa, Apple's Siri, and Google Assistant),

[1] 'Artificial Intelligence' (*Merriam Webster*) <https://www.merriam-webster.com/dictionary/artificial%20intelligence> accessed 13 November 2023
[2] Haroon Sheikh et al., *Mission AI the New System Technology* (Springer 2023)
[3] Christopher Collins *et al.*, 'Artificial Intelligence in Information Systems Research: A Systematic Literature Review and Research Agenda' (2021) 60 International Journal of Information Management <https://doi.org/10.1016/j.ijinfomgt.2021.102383> accessed 13 November 2023
[4] *Ibid*

pattern recognition algorithms, monitoring processes in industries, fault detection, forecasting, and especially in the healthcare sector to improve the treatment process.[5]

2. **Copyrights:** According to the Cambridge Dictionary, copyright is 'the legal right to control the production and selling of a book, play, film, photograph, or piece of music.'[6] According to the Oxford Advanced Learner's Dictionary, copyright is 'if a person or an organization holds the copyright on a piece of writing, music, etc., they are the only people who have the legal right to publish, broadcast, perform it, etc., and other people must ask their permission to use it or any part of it.'[7]

Copyright (or author's right) is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculptures, and films to computer programs, databases, advertisements, maps, and technical drawings.[8] A creator gains copyright over a work when they create it, and the body of law surrounding those rights It used to be that to gain such rights, you had to take specific actions, such as affixing a copyright notice to your work and, in many countries, registering the work with the government or with an organization granted the right to issue copyrights by the government. A work for which such actions had been taken was copyrighted, and works for which such actions had not been taken were not.

Section 14[9] defines 'Copyright',' which states that copyright is the exclusive right of the author to do or to delegate any act concerning his work, such as reproduction, publication, adaptation, and translation of work. Also, Section 17[10] of the Act stipulates that the author shall be the first copyright owner; however, if the contracted work is performed by an employed individual for consideration, in this case, the employer is the owner of the created work.

[5] Hossein Hassani, 'Artificial Intelligence (AI) or Intelligence Augmentation (IA): What Is the Future?' (2020) 1(2) AI <https://doi.org/10.3390/ai1020008> accessed 13 November 2023
[6] 'Copyright' (*Cambridge Dictionary*) <https://dictionary.cambridge.org/dictionary/english/copyright> accessed 13 November 2023
[7] *Ibid*
[8] 'Copyright' (*WIPO*) <https://www.wipo.int/copyright/en/> accessed 13 November 2023
[9] Copyright Act 1957, s 14
[10] Copyright Act 1957, s 17

Section 2(d) of the Copyright Act 1957 provides an elaborate definition of 'author' and in the case *Rupendra Kashyap v Jiwan Publishing House Pvt. Ltd.*,[11] it was held that - *[...] in the context of question papers for an examination, that the author of the examination paper is a person who has compiled the questions; the person who does this compiling is a natural person, a human being, and not an artificial person; Central Board of Secondary Education is not a natural person and it would be entitled to claim copyright in the examination papers only if it establishes and proves that it has engaged persons specifically for purposes of preparation of compilation, known as question papers, with a contract that copyright therein will vest in Central Board of Secondary Education.*[12]

Likewise, the courts have maintained, in light of various other decisions, that a legal person cannot be granted authorship for any work involving copyright. The Copyright Office's Practice and Procedure Manual (2018) explicitly states that only an application from a natural person can provide the authorship of the work during the copyright registration.

The author's argument as a natural person was based on the conclusions of courts that decide the copyright of work in various jurisdictions, which can be summarized as follows:

- The first owner of the copyright is always the author.[13]
- Authorship elements are needed to select, coordinate, and arrange the materials to protect a compilation.
- A compilation created by dedicating money, skill, labour, and time is a scholarly work in which the copyright vests with the author.[14]
- The copyright ability of the work is to be tested based on the author's skills and judgment being applied in the original work.[15]

[11] *Rupendra Kashyap v Jiwan Publishing House Pvt Ltd* (1994) 28 DRJ 286
[12] *Navigators Logistics Ltd. v Kashif Qureshi* (2018) 76 PTC 564
[13] Copyright Act 1957, s 17
[14] *Burlington Home Shopping Pvt. Ltd. v Rajnish Chibber* (1996) 113 PLR 31
[15] *Eastern Book Company v D. B. Modak* (2008) 1 SCC 1

RELEVANCE OF COPYRIGHT IN THE ERA OF ARTIFICIAL INTELLIGENCE

Copyright is more important in the age of artificial intelligence, as AI blurs the distinction between human and machine-generated work. The rapid progress of AI technology has given rise to complex questions about authorship, ownership, and intellectual property rights protection. Determining who owns the copyright on AI-generated works is becoming more complicated, affecting creators, companies, and users. It is critical to adapt existing copyright regulations to account for the peculiarities of AI-created material. This challenge highlights the need to strike a balance between encouraging innovations and protecting creators' rights in an ever-changing landscape. A more in-depth examination of the delicate relationship between AI and copyright law is required to ensure proper legal protection for creative works created by humans or AI.[16]

The ability of artificial intelligence to learn and mimic human styles from massive databases raises critical problems regarding copyright protection for works created with minimum human interaction. While copyright rules have drifted away from merely rewarding human skill and effort, an exception in the case of advanced AI is worth examining. One method could be to grant copyright to people who enable AI operations, as the UK has done. This strategy ensures that businesses continue to invest in AI technology, certain that they will see a return on their investment. Copyright protection may thus adapt to the evolving creative world while maintaining its essential objective of safeguarding original works.[17]

'The Path of Law' by Justice Oliver Wendell Holmes emphasizes the law's evolutionary aspect, responding to technological breakthroughs such as artificial intelligence (AI). Recent examples of AI's creative potential throw traditional notions of authorship, copyright, and legal protection into doubt.[18]

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[16] Andres Guadamuz, 'Artificial Intelligence and Copyright' (*WIPO Magazine,* October 2017*)* <https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html> accessed 13 November 2023

[17] *Ibid*

[18] Aviv H. Gaon, *The Future of Copyright in the Age of Artificial Intelligence* (Elgar Law 2021)

The fast improvements in artificial intelligence (AI) highlight the importance of intellectual property (IP) in the digital age. The ability of AI to develop creative content on its own, as evidenced by works such as 'The Day a Computer Writes a Novel' and 'The Sunlight that Lost the Glass Window poses significant challenges to traditional concepts of authorship and copyright ownership. Machine learning and deep learning technologies, which enable AI systems to mimic human cognitive processes and make autonomous creative decisions, contribute to AI-generated works' increasing autonomy. This move raises basic problems regarding who should be recognized as the rightful owner of these creations' copyrights. The changing environment of digital authorship in AI-generated works necessitates a close analysis within the context of copyright law.[19]

The application of artificial intelligence (AI) to copyright law is a moving target. Certain countries, such as the United Kingdom, South Africa, Hong Kong, India, Ireland, and New Zealand, extend protection to computer-generated works, sparking ownership rights conflicts. The topic of whether AI programmers or consumers should be acknowledged as the rightful owners of AI-generated content remains important. Existing copyright policies, particularly in European countries that value human creativity in authorship, may not appropriately accommodate AI-generated works, necessitating policy considerations such as *sui generis* rights or copyright law changes. Defining AI-generated material and dealing with copyright concerns in AI training datasets are difficult tasks. When AI systems mistakenly imitate protected information, liability risks develop, necessitating clarity on prevention and accountability for both users and programmers.[20]

[19] Sik Cheng Peng, 'Artificial Intelligence and Copyright: The Author's Conundrum' (2018) WIPO-WTO Colloquium Papers <https://www.wto.org/english/tratop_e/trips_e/colloquium_papers_e/2018/chapter_13_2018_e.pdf> accessed 13 November 2023

[20] Jan Zibner, 'Artificial Intelligence: A Creative Player in the Game of Copyright' (2019) 10(1) European Journal of Law and Technology <https://ejlt.org/index.php/ejlt/article/view/662> accessed 13 November 2023

AUTHORSHIP AND OWNERSHIP IN AI-GENERATED WORKS

The authorship and ownership of AI-generated works raise complicated legal and ethical issues. The traditional concept of authorship, which is based on human creative agency, is facing challenges as AI systems produce content on their own. Although many jurisdictions have extended copyright protection to computer-generated works, the issue of ownership remains ambiguous. Who has the right to claim authorship—the human programmer, the user who instructs the AI, or the AI system itself? Authorship determination is critical in establishing copyright ownership and associated rights. When AI's creative capacity diverges from human-like creativity, problems about eligibility for copyright protection arise. To address these issues, legal changes are required, as well as the development of precise criteria for recognizing authorship and ownership in AI-generated works.

Due to the growing incorporation of artificial intelligence tools in creative pursuits, the legal landscape has yet to catch up with technical breakthroughs. While current laws provide some direction, the lack of AI-specific legislation has created ambiguity around authorship, ownership, and responsibility. Legislative reform is required to ensure clarity on these matters. In the absence of such reform, developing case law can provide insights.

Artificial Intelligence in the Creative Industries

Artificial intelligence has numerous uses in the creative industries, including:

- Creating or modifying textual material (for example, ChatGPT).
- Making art and digital images (for example, DALL-E and Mid-journey).
- Creating programming code (for example, Copilot).[21]

Determining copyright protection for AI-generated works is paramount before addressing authorship and ownership concerns. The degree of originality required by copyright law is still uncertain, as demonstrated by China's Copyright Law**.** While some academics advocate for

[21] 'Artificial Intelligence' (*University of South Australia*) <https://guides.library.unisa.edu.au/copyrightforcreatives/AI> accessed 13 November 2023

copyright protection, others question the originality of AI-generated works. International treaties such as the World Intellectual Property Organization Copyright Treaty (WCT) and the Berne Convention lack explicit standards for determining originality. To be eligible for copyright protection, AI inventions must be unique. Notable examples, such as the *Dreamwriter case*[22] in China, demonstrate the possibility of AI-generated works meeting this level, albeit with differing legal interpretations, as evidenced in the *Beijing Feilin Law Firm v Beijing Baidu Technology Co. Ltd. case.*[23] The question is whether AI should have the same copyright rights as human authors. [24] Similar views are held by European civil law nations like Germany and France, which emphasize the personality of the author as a fundamental component of copyright authorship. Existing frameworks are being challenged by the rapid growth of technology, even with these basic principles in place.

The Indian Copyright Office, marking the first instance of AI recognition as a co-author, recognized the RAGHAV Artificial Intelligence Painting App as a co-author of a copyright-protected artwork in a landmark 2021 verdict. This development indicates a move toward AI being regarded as the sole author. Aside from collaborative authorship, AI is now being considered an autonomous creator in several legal settings. For example, in China, organizations or non-legal-person entities are recognized as writers, provided they convey intent in the work and assert ownership. Such legal frameworks classify AI as non-natural legal entities, bridging the gap between AI and traditional copyright law.[25]

Authorship has been inextricably linked to human creation for generations. However, the rapid rise of AI and machine learning has ushered in a new era in which AI systems can generate unique works on their own, raising complex considerations concerning authorship. Legal standards, such as the 'modicum of creativity' test,[26] highlight the importance of human

[22] *Shenzhen Tencent Computer System Co. Ltd. V Shanghai yingxun Technology Co. Ltd.* 0305 Civil First Trial No 14010
[23] *Ibid*
[24] Han Wang, 'Authorship of Artificial Intelligence-Generated Works and Possible System Improvement in China' (2023) 14(2) Beijing Law Review <https://www.scirp.org/journal/paperinformation?paperid=125721#:~:text=According%20to%20the%20above%20analysis,after%20his%20or%20her%20decease%E2%80%9D.> accessed 13 November 2023
[25] *Shenzhen Tencent Computer System Co. Ltd. V Shanghai yingxun Technology Co. Ltd.* 0305 Civil First Trial No 14010
[26] *Eastern Book Company v D. B. Modak* (2008) 1 SCC 1

participation in copyright eligibility, as demonstrated in the *monkey selfie* case.[27] While humans design AI algorithms, AI decision-making acts autonomously. The Indian Copyright Act defines an 'author' as a human creative.

When AI functions autonomously, issues of authorship and ownership become more complicated. The European Commission is working on a directive to define 'legal personality' for artificial intelligence. Copyright laws may either deny copyright to works with little human involvement or claim authorship to AI developers. The difficulties are exacerbated when artists routinely use AI systems, making it impossible to distinguish between human and AI-created art. Rethinking notions such as 'employer' and 'employee' within the 'Work Made for Hire Doctrine' may define AI as an employee, providing a framework for regulating AI-generated work. In contrast, the 'Work Made for Hire Doctrine', a copyright exemption, provides employees with copyright ownership when their employees create work while on the job. Extending this approach to AI systems requires employers to be viewed as the legal authors of AI-generated works. However, because AI-generated inventions lack human authorship, there are problems concerning copyright eligibility and the rights of software designers. Implementing the 'Work Made for Hire' approach under current copyright law for AI-generated works is difficult, and legislative changes are required to ensure that copyright law supports AI's creativity and autonomy. [28]

INDIA'S LEGAL FRAMEWORKS FOR COPYRIGHT PROTECTION

The current legal framework in India does not adequately safeguard the copyright of AI-generated works, posing a multidimensional challenge. Under Indian copyright law, AI is not explicitly acknowledged as an author, complicating content ownership. The 161st report of the Parliamentary Standing Committee advocated establishing a new category of rights for AI innovations, addressing intellectual property protection. Mr. Rajeev Chandrasekhar, Minister of

[27] *Naruto v Slater* 15-cv-4324
[28] Gyandeep Chaudhary, 'Artificial Intelligence: Copyright and Authorship/Ownership Dilemma?' (2022) 13(2) Indian Journal of Law and Justice <https://ir.nbu.ac.in/bitstream/123456789/4773/1/Artificial%20intelligence%20-%20copyright%20and%20authorship%20ownership%20dilemma.pdf> accessed 15 November 2023

State for Electronics and Information Technology, stated that the government intends to regulate AI in order to protect digital people. However, it is unclear if AI-generated content may be copyrighted. There are difficulties in classifying AI as a 'person' under the law and addressing the source of AI training data. Some copyright issues have arisen, particularly with reference to LLM-trained datasets without the authors' permission, which could jeopardize their careers and moral rights. AI content can be protected as derivative works if it differs significantly from the original. The introduction of AI tools such as ChatGPT has highlighted serious intellectual property concerns, needing prospective changes to copyright laws as well as a clearer legal framework for AI-generated content. The legal implications of employing these tools are unknown until such laws are adopted.[29]

In India, the legislative framework for copyright protection is aligned with the 161st Report of the Department of Parliamentary Standing Committee on Commerce, which was presented in July 2021. emphasizes the importance of intellectual property in India's overall growth and development. It recognizes the impact of developing technologies on the copyright landscape, particularly artificial intelligence. The recommendations emphasize creating a balanced environment for literary works by amending copyright laws to allow the reproduction of works in government-owned educational institutions, extending the registration term of Copyright Societies, and expanding statutory licensing to include 'internet or digital broadcasters.' These steps demonstrate India's commitment to adapting its copyright protection system to the developing AI-driven digital world.

Determining copyright ownership within the legal framework for AI-generated works becomes a tough challenge. In India, ownership is often vested 'initially in the author or authors of the work'. However, the emergence of AI-created content poses new issues, as there are no clear precedents or Copyright Office decisions determining who qualifies as the 'author or authors' of these works. An analogy can be established to photography, where the designer of the AI

[29] Srishti Ojha, 'Who Owns AI-Generated Works? Here's What the Laws Say on Copyright Issue' *India Today* (22 September 2023) <https://www.indiatoday.in/law/story/chatgpt-ai-generated-content-copyright-ownership-complexities-india-2439165-2023-09-22> accessed 15 November 2023

system is analogous to the camera maker, and the user who instructs the AI to produce certain content is analogous to the photographer capturing an image. According to this viewpoint, the AI user might be regarded as the author, becoming the initial copyright owner. Nonetheless, the creative decisions required in developing and training the AI may provide the AI's developer with a more solid claim to some type of authorship, separate from the camera manufacturer.

Companies that provide AI software frequently use contractual procedures, such as the company's terms of service, to manage copyright ownership. For example, OpenAI's Terms of Service appear to provide the user with any copyright, stating, 'OpenAI hereby assigns to you all of its right, title, and interest in and to Output.' This is in contrast to prior versions of the agreements, which purported to extend such rights to OpenAI. Scholars have noted that OpenAI's strategy is to avoid copyright ambiguities, mostly through contractual agreements. As the environment of AI-generated work evolves, the Indian legal community has the daunting task of updating existing copyright rules to address the complex web of AI authorship and ownership. Clear legislative standards are required to strike a balance between encouraging innovation and safeguarding the rights of producers and users.

COPYRIGHT CHALLENGES IN AI-GENERATED WORKS

The issues surrounding the authorship and ownership of AI-generated content, as well as copyright, are centered on new legal frameworks and precedents. The Copyright Office's guidelines in the United States highlight the requirement for human authorship in AI-generated works, raising concerns regarding eligibility for copyright protection. There is some ambiguity in identifying wholly AI-generated works from those with human intervention. Compliance with AI training data requirements and attribution of moral rights in circumstances of extensive human input pose issues in Australia. Because copyright law primarily emphasizes people as creators, addressing AI's role is problematic. To handle these developing complexities, proactive solutions such as transparent data collection and tailored datasets are advised.

The emergence of AI-generated works has raised several challenges in the realm of copyright law. Some of them are briefly discussed here:

Compilation of Existing Material: To generate new material, AI-created work frequently relies on existing data or publicly available information. Because AI may not create wholly creative works but instead edits or updates existing data, this reliance on pre-existing content raises worries about potential copyright infringement. This is similar to the case of *Authors Guild, Inc. v Google, Inc.*[30] in the United States, where Google's copying of complete books to construct a searchable database with excerpts was judged a transformative use, constituting fair use. However, the degree of modification and reliance on pre-existing content in AI-generated works may vary.

Originality: Under Indian copyright law, a work must be 'original' to be protected. While the Copyright Act does not define 'original work,' courts often take into account elements such as the intrinsic linkage between expression and idea, the application of effort, the presence of a modicum of originality, and the involvement of judgment and skill. In the United States, the case of *Feist Publications, Inc. v Rural Telephone Service Co.*[31] established that mere labor and capital investments are insufficient for copyright, highlighting the importance of originality in works. The notion of originality in AI-generated works is still debatable.

Infringement: When AI is regarded as the owner and author of the work, determining liability for copyright infringement becomes more difficult. The case of *Bridgeport Music, Inc. v Dimension Films*[32] in the United States raised the subject of unauthorized sampling in music, raising concerns about the extent to which AI-created content could infringe on existing protected material. Given AI's lack of legal status, establishing accountability for its activities and any violations is a big difficulty.

Difficulties with AI as a Copyright Holder: Several legal provisions under Indian copyright law make identifying, AI as a creator, difficult. The employer-employee connection essential for copyright transfer is difficult to establish in the context of AI-generated works. The case of

[30] *Authors Guild, Inc. v Google Inc 721 F.3d 132*
[31] *Feist Publications v Rural Telephone Service Co.* 499 U.S. 340
[32] *Bridgeport Music, Inc. v Dimension Films* 383 F.3d 390

Viacom International, Inc. v YouTube, Inc.[33] in the United States addressed problems with user-generated content and copyright liability. Moral rights, such as the right to fatherhood and the right to integrity, lose significance because AI does not have the emotional capacity to experience them. Determining AI royalties, enforcing accountability for AI-generated content, and dealing with disparaging or slanderous AI-generated works are complicated matters.

The concept of authorship and ownership is crucial in the area of AI-generated creation. The approach of the legal framework to new machine-driven works has significant commercial ramifications, particularly in industries such as music, journalism, and gaming, where AI is already making significant contributions. The intriguing question is whether AI-created works are copyright-free because of their non-human authorship. If this is the case, it might open the door to unrestricted usage and reuse, which could be problematic for organizations that have invested considerably in AI-generated content. Consider the following scenario: a significant investment in an AI system that makes music for video games suddenly loses its legal protection, allowing anyone in the world to utilize it without recompense.

The effect on the creative economy is unknown, but the mere prospect of AI-generated works falling outside of copyright protection may discourage investment in automated systems. If developers and businesses are unsure about their eligibility for copyright protection, they may be hesitant to invest in AI-driven solutions. Nonetheless, considering the huge cost savings obtained in staff expenses, the use of artificial intelligence for time-saving applications remains acceptable. The changing landscape of AI-generated works sparks vital debates about the need for legal clarity and protection to stimulate innovation and preserve a fair balance between creators and consumers.[34]

The use of artificial intelligence (AI) for content generation has created complex copyright difficulties in India. AI training frequently involves the replication or use of copyrighted materials, raising issues about infringement. AI firms may assert fair usage by citing transformational aims and restricted public distribution. However, because AI-generated

[33] *Viacom International, Inc. v YouTube, Inc.* 17 U.S.C. 504(c)
[34] Guadamuz (n 16)

content closely resembles original works, market competitiveness concerns arise. Copyright infringement is alleged in lawsuits based on access to the original works and substantial similarities. Additional issues arise when AI systems imitate styles or characters. Liability determination is complicated, with both AI users and companies possibly liable. Establishing a legal framework for AI-generated content in India requires careful thought to protect the rights of authors and copyright holders.[35]

The issue of granting authorship rights to AI in AI-generated works is complex, with far-reaching implications. If AI is recognized as the author and copyright infringement occurs, or if AI-generated content infringes on existing copyrights, legal actions become intricate. AI, lacking juristic or natural personhood, cannot enforce its copyright or be held liable. Therefore, addressing the legal status of AI is a prerequisite. Furthermore, under Indian law, original literary, dramatic, musical, and artistic works are protected for 60 years from the year following the author's death. If AI is granted authorship in these works, it disrupts the traditional rationale for copyright protection duration, given AI's perpetual existence.[36]

EMERGING SOLUTIONS AND POLICY RECOMMENDATIONS

1. US COPYRIGHT Office Policy on AI-Generated Works: The United States Copyright Office issued its first explicit advice on copyright eligibility for AI-generated works in March 2023. Only works with adequate human authorship are copyrightable, according to the guidance.

- **Requirement for Human Authorship:** Copyright registration for AI-generated works is contingent on human authorship. AI-created works with no human input or intervention do not meet these criteria and are not copyrightable. This is true when AI creates complicated works on its own.

[35] *Feist Publications v Rural Telephone Service Co. 499 U.S. 340*

[36] Shradha Prakash, 'Copyright Ownership of AI Generated Content in India' (*Sujata Chaudhri IP Attorneys*, 16 March 2023) <https://www.sc-ip.in/post/copyright-ownership-of-ai-generated-content-in-india> accessed 15 November 2023

- **Copyright Eligibility:** Works that use a combination of AI-generated and human-authored content may be copyrightable. If humans choose, arrange, or change AI-generated information in a creative way, it may be protected by copyright.
- **Disclosure Obligation:** Copyright applicants are required to disclose the usage of AI-generated content in their works. Existing applications that do not include such disclosure should be updated.
- **Future guidelines:** The Copyright Office may release additional guidelines in the future regarding AI-produced works and AI-related copyright issues. Public feedback on AI's legal and policy implications will be requested.

These achievements demonstrate the Copyright Office's dedication to navigating the evolving influence of AI on copyright law.[37] Certain landmark judgments are as follows:

Burrow Gilles Lithographic Co. v Sarony – The emphasis of this case was on whether an image/photograph could obtain copyright protection.[38] It was an interesting case because it addressed the separation of mechanical and artistic work. The court addressed whether or not a product that is machine-generated should be given copyright protection. By maintaining that solely mechanical labour is not artistic per se, the court has limited the extent of its protection. Consequently, copyrights for their works cannot be granted if the AI systems are subject to a rigid approach like this.

Bleistein v Donaldson Lithographing Co. – The decision in *Burrow Gilles Lithographic Co. v Sarony* was followed in this case. The court specifically discriminated against the work of a human and anything abstract or artificial. Speaking for the majority, Justice Holmes established the human personality's singularity and held out the same as a requirement for copyright. In using this phrase, the court made its position clear 'something irreducible, which is one man's

[37] Evan Gourvitz and S. Lara Ameri, 'Can Works Created with AI Be Copyrighted? Copyright Office Issues Formal Guidance' (*Ropes and Gray*, 17 March 2023) <https://www.ropesgray.com/en/insights/alerts/2023/03/can-works-created-with-ai-be-copyrighted-copyright-office-issues-formal-guidance> accessed 15 November 2023

[38] *Burrow Gilles Lithographic Co. v Sarony* [1884] 111 U.S. 53

alone' implying that not anything that is not a result of human imagination was eligible for any protection.[39]

Alfred Bell & Co. v Catalda Fine Arts, Inc. - The view adopted by the court towards copyright saw a softer approach. The court lowered the criteria of originality and decided that, in order for the work to be original, it must not be copied from any other similar artistic work.[40] It also held that an author could claim unintended or incidental variations as his own. This decision was also a relief to people who asserted copyrights of the work created by AIs, although some programming and algorithms did not replicate it. To a certain degree, these three decisions resolve the uncertainty surrounding the protection granted to AI systems. However, the prospective right holders still have an impact due to the lack of a definitive position.

2. Australian Perspective

AI Training Data Compliance: The conformity of original materials used to train AI systems is a major challenge. While AI training often involves the use of data and images, Australian copyright rules do not provide specific exceptions for data mining or machine learning works. Existing exceptions to copyrighted works may not be applicable in such AI training settings. If AI training uses illegally copied resources and the resultant output can be traced back to these materials, the original copyright owners may issue takedown or infringement notifications.

Attribution and re-use: AI-generated works, which are made entirely by AI with no significant human input, are not protected under Copyright Law, including moral rights, which require acknowledgment or attribution. However, if human authorship meets the standard of 'independent intellectual effort', full moral and commercial rights, including credit, must be protected. In any case, it is best to acknowledge the use of AI in the creation of the work in the spirit of transparency.

[39] *Bleistein v Donaldson Lithographing* [1903] 188 U.S. 239
[40] *Alfred Bell & Co. v Catalda Fine Arts* 191 F.2d 99

Only humans are recognized as writers (or performers) under copyright law, and only humans are granted moral rights. One of these rights is the right to be identified as the author of a work. Because AI has no rights under copyright law, it does not require acknowledgment as a creator. To maintain openness with the audience, it may be prudent to transparently reveal the usage of AI in the creative process. This is consistent with 'Australia's AI Ethics Principles' which are a component of the Australian Government's 'Australia's Artificial Intelligence Ethics Framework.' While not legally obligatory, these principles provide essential guidelines for best practices when dealing with AI.[41]

FINDINGS

With the advent of generative artificial intelligence (AI), proactive measures are required to protect authors' rights, overcome legal difficulties, and promote ethical AI activities.

AI developer compliance: AI developers must follow legal data acquisition standards, such as proper licensing and compensation for adding intellectual property into training datasets. Transparency about training data sources is critical for ensuring ethical AI development.

User transparency: Customers should review AI tool terms of service and privacy policies to ensure that training data sources are legal. Preventing AI technologies with dubious data origins is critical for preventing potential copyright violations.

Ethical data collecting: Long-term solutions include ethical data collecting, open data origins, and getting opt-in agreements from content creators. Maintaining the provenance of AI-generated content, including platform information, can improve transparency.

Legal protections in contracts: To mitigate AI-related risks, businesses should include protective clauses in contracts. This involves ensuring that training data is properly licensed,

[41] 'Artificial Intelligence (AI) and Copyright' (*Arts and Law*) <https://www.artslaw.com.au/information-sheet/artificial-intelligence-ai-and-copyright/> accessed 16 November 2023

obtaining indemnification for intellectual property infringements, and inserting AI-related wording into confidentiality contracts.

Developing personalized AI datasets: Content creators should think about developing personalized datasets for legal data sourcing or co-creation with followers. These techniques verify the legitimacy of the content as well as compliance with the terms of service.

Awareness: Consumers, makers, and authors must be aware of the use of artificial intelligence. It is critical to understand the potential plagiarism penalties associated with AI-generated work.

While developing authorized private content presents obstacles, it also provides opportunities. Responsible AI development and intellectual property protection are critical for navigating this disruptive future.[42]

CONCLUSION

The rise of AI-generated work calls into question copyright law's basic ideas of authorship and ownership. The legal framework has yet to catch up with the rapid improvements in AI technology, resulting in uncertainty about the rights and duties of inventors, users, and AI systems. While policy ideas and emerging solutions from the United States and Australia provide starting guidance, addressing these complex concerns requires a comprehensive legal framework. In the evolving ecosystem of AI-generated works, legal clarity is critical to encouraging innovation while preserving a fair balance between producers and consumers. To summarize, the increasing importance of AI in content generation necessitates a reassessment of existing copyright laws and legal frameworks to deal with the challenges and opportunities it presents. The goal of this study is to shed light on the issues surrounding AI-generated content by delving into the complex interaction between AI and copyright protection, allowing for the

[42] Gill Appel *el al.*, 'Generative AI Has an Intellectual Property Problem' (*Harward Business Review*, 07 April 2023) <https://hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem> accessed 15 November 2023

development of viable solutions that bridge the gap between current rules and the developing ecosystem of AI-driven content creation.