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From Human Intellect to Machine Creativity: The Challenge of AI Works under Copyright Law

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With the emergence of Artificial Intelligence (AI), the domain of copyright law has reached new dimensions. As AI systems increasingly generate or enhance creative works, the traditional human-centric foundation of copyright faces significant challenges with respect to the foundational principles of authorship and originality. Copyright protection historically rests on the idea of human intellect and personal expression, but AI-generated works often lack substantial human involvement. This study explores whether existing international and national legal frameworks adequately govern the copyrightability of AI-content. It examines how originality and authorship are interpreted in relation to autonomous AI systems and evaluates the legal and ethical implications of granting copyright to non-human creators. The research adopts a doctrinal approach, analysing statutes, judicial decisions, and scholarly literature across major jurisdictions such as India, the United States, the United Kingdom, China and international instruments like the Berne Convention. It concludes that while current laws predominantly recognise human authorship, the rapid evolution of AI necessitates re-examination of copyright principles or the introduction of a sui generis regime to ensure balanced protection that upholds human creativity while acknowledging technological innovation.

Keywords: *copyright, artificial intelligence, authorship, originality, creativity.*

INTRODUCTION

The act of creation is traditionally equated with a human being.¹ Traditionally, the creative work has been ascribed to a human being. Copyright protection rests on the presumption that creative works are an outcome of human intellect and personal expression. Traditional copyright systems confer authorship rights only on natural persons from whom works of literature, music, art, or other creative endeavour originate. At its core lies the human element, as copyright law emphasises original expression, which embodies the ideas, feelings, and skill of the human creator.

Artificial intelligence technologies are reshaping the landscape of creativity, resulting in an increasing number of AI works. These works, created either autonomously or with minimal human intervention, challenge traditional concepts of authorship and intellectual property. Copyright law, traditionally designed to protect human creativity, faces difficulty in adapting to these new forms of creation. The traditional objective of copyright law was to reward and protect creativity, which is a product of human intellect. However, a work that has been generated by AI may imply the absence of human intellect or the presence of negligible human intellect. Granting protection to such works may undermine the very purpose of copyright law. This raises legal and ethical questions regarding originality and authorship of AI works.

The study examines whether the existing legal framework on copyright is equipped to protect AI works. The traditional notions of authorship and originality must be understood in the context of works that are generated by AI or made with considerable assistance from AI. Additionally, the research examines the legal and ethical challenges surrounding AI outputs, particularly the issues related to liability, ownership, and the extent of protection available to creators.

A LOOK INTO THE EXISTING LAWS ON COPYRIGHT

In the digital age, AI has been producing outputs that resemble human creations, and there has been a demand for the protection of such creations. This is in contrast with the traditional views on copyright law, which encompasses human creativity and requires the presence of

¹ Ana Ramalho, *Intellectual Property Protection for AI-generated Creations: Europe, United States, Australia and Japan* (1st edn, Routledge 2024)

a human author in order to grant protection to an original work. The surge in AI works has raised concerns about their authorship, originality, and copyrightability. The copyright statutes and rules of many nations have attempted to address this issue. It is the need of the hour to revisit the legal provisions, if any, incorporated in the international and national statutes dealing with these issues.

INTERNATIONAL INSTRUMENTS

The Berne Convention: The Berne Convention for the Protection of Literary and Artistic Works (1886)² is widely considered a milestone for copyright protection. The Berne Convention primarily emphasises human authorship and copyright protection for creative works. It does not specifically mention the protection of works created by AI due to the obvious reason that it was developed at a time when even modern software and digital technologies were not prevalent. However, the Berne Convention gives importance to human authorship. Since most of the AI works lack the involvement of human intellect, they are not protected under the Convention, and regarding those AI works that may have some degree of human authorship, the Convention can be said to have remained silent on AI works.

According to the Convention, protection is granted to ‘authors’ of literary and artistic works, which implicitly refers to humans.³ Copyright is meant to recognise the personal rights and economic interests of creators, which, under the Berne Convention, requires the existence of a human creator.

Currently, there exists no international treaty that speaks to protection under copyrights for AI-generated content. In this regard, the World Intellectual Property Organisation (WIPO) considers AI’s impact on intellectual property⁴ and even conducted a public consultation on AI and IP policy in 2019.⁵ In the WIPO Copyright Treaty 1996,⁶ the scope of protection has been extended over ‘computer programs,’⁷ though AI is often wrongly equated with

² Berne Convention for the Protection of Literary and Artistic Works 1887

³ Berne Convention for the Protection of Literary and Artistic Works 1887, art 3

⁴ Andres Guadamuz, ‘Artificial Intelligence and Copyright’ (WIPO, 01 October 2017)

<<https://www.wipo.int/en/web/wipo-magazine/articles/artificial-intelligence-and-copyright-40141>> accessed 07 October 2025

⁵ *Ibid*

⁶ WIPO Copyright Treaty 2002

⁷ WIPO Copyright Treaty 2002, art 4

software. However, AI refers to the ability to perform all the functions associated with human intelligence, and this allows machines to learn and make choices; in contrast, traditional computer programs are only collections of instructions. While the treaty protects computer programs as a form of literary work, AI-generated works fall into different classification categories and, therefore, would not qualify for copyright under the existing system. In case of a computer programme, the copyright lies with the user, that is, the author who used the program to create his or her work, but when it comes to artificial intelligence algorithms that are capable of generating a work, the user's contribution to the creative process may simply be limited to pressing a button to enable the machine to create.⁸

POSITION IN INDIVIDUAL JURISDICTIONS

United Kingdom: In the UK, the primary copyright law that has been in force to date is the Copyright, Designs and Patents Act (CDPA) 1988. The provisions thereunder mention that the author of computer-generated works can be a person who arranges for the creation of works.⁹ Further, a computer-generated work can be defined as a work that is created without the intervention of humans.¹⁰ The CDPA has therefore created a provision to operate as an exception to the requirement of human authorship so that the work of that kind receives due recognition and protection under the copyright law.

United States of America: Right now, the US copyright law is silent on the protection of AI works. The National Council on the Use of New Technologies in Copyright Works (CONATU), in a report published in 1978, identified the authors of AI works as the people who created them, not as artificial intelligence itself, but this is not formal legislation.¹¹ The copyright statute in the USA is the Copyright Act of 1976. Sec 101 of the Act does not define the word 'author,' but the very concept has undergone several interpretations by the US Copyright Office and the Courts to include only humans. In the context of AI-generated works, these interpretations have raised questions regarding the authorship because AI

⁸ Guadamuz (n 4)

⁹ Copyright, Designs and Patents Act 1988 (UK), s 9(3)

¹⁰ *Ibid* s 178

¹¹ Sun Yuang, 'AI Works Protected by the Laws of the International Situation and Enlightenment' (7th International Conference on Humanities and Social Science Research, 2021) <<https://www.atlantis-press.com/proceedings/ichssr-21/125956828>> accessed 09 February 2026

works are sometimes purely created by machines and thus cannot be copyrighted under the Act.

China: The Copyright Law of the People's Republic of China provides the list of works in which copyright subsists. Written works, oral works, musical, dramatic, folk craft, choreographic, and acrobatic art works, fine art and architectural works, photographic works, audiovisual works, graphic works and models such as engineering design drawings, product design drawings, maps, and schematic diagrams, computer software and other intellectual achievements that meet the characteristics of the work are the works which are given protection.¹² Chinese law does not explicitly address AI works, but there have been many judicial decisions showing the enthusiasm of the Chinese legal system to extend the applicability of its copyright law to the works created by AI, provided that such works involve significant human intervention. Copyright holders include authors and other natural persons, legal persons, or unincorporated organisations.¹³ Here, there is no mention that AI can be an author. Thus, it implies that humans can only be the authors in case of AI works and that too in cases where they have a substantial part in creating the work, although with the aid of AI.

India: The Indian Copyright Act 1957 grants copyright protection to creative literary, artistic, dramatic, and musical works, sound recordings, and cinematograph films under Sec 13. Though not explicitly stated, there is a requirement of human authorship for the grant of copyright. Sec. 2(d) of the Act defines the term 'author' in relation to each category of work. This word 'author' is legally construed as a human. Indian courts have generally followed the principle that copyright law protects the intellectual output of human creators.

ORIGINALITY IN THE CONTEXT OF AI WORKS

Whether AI works are original or not has been a controversial question. Originality is the hallmark of a copyrightable work. It is the prime factor considered for a work to be protected under copyright law. In the context of AI works, the question of originality becomes more complex, as AI can autonomously produce content without direct human involvement.

¹² Copyright Law of the People's Republic of China (2020 Amendment), art 3

¹³ *Ibid* art 9

Judicial Interpretations: In the realm of copyright law, 'originality' has undergone several judicial interpretations. In *Feist Publications, Inc. v Rural Telephone Service Co.*¹⁴, the US Supreme Court laid down two essentials for a work to be considered original and thus eligible for copyright protection. One is 'Independent Creation', which means that the work must be created by an author and it must not be copied from another's work. The other one is 'Minimal Creativity'. It signifies that the work possesses some level of creativity. Even a small amount of creativity would suffice.

The Supreme Court of Canada has adopted the doctrine of skill and judgment to determine the standard of originality in *CCH Canadian Ltd. v Law Society of Upper Canada*.¹⁵ The Court explained that skill involves the use of knowledge, developed aptitude or practised ability, and judgment involves the exercise of discernment or deliberation.

In India, originality is interpreted with reference to skill, labour, and judgment as established in cases like *Eastern Book Company v D.B. Modak*.¹⁶ The Supreme Court of India held that originality does not require novelty or creativity but requires the work to be an outcome of the author's skill, labour, and judgment, creating something more than a mere copy of a previous work. Thus, the Courts rule that 'originality' means that a work of an author is independently created by him or her and not copied from any existing work. Also, the work must exhibit at least a minimal level of originality and intellectual expression.

WORKS GENERATED BY AI

To understand the meaning of originality with reference to AI works, such works can be classified as AI-Generated works, and AI-Aided or Assisted works. AI-generated content refers to that which an AI system derives with minimal or no direct human input in the creation of said work. In this case, usually, the AI will be programmed to come up with creative works based on the data it has been trained to recognise.

Human Authorship: A human author has always been the condition precedent to copyright protection. An original work should be imbued with the personal creativity and expression of the human creator. An AI-generated work lacks such a human touch. Therefore, such

¹⁴ *Feist Publications, Inc v Rural Telephone Service Co* [1991] 499 US 340

¹⁵ *CCH Canadian Ltd v Law Society of Upper Canada* [2004] 1 SCR 339

¹⁶ *Eastern Book Company & Ors v D B Modak & Anr* AIR 2008 SC 809

works ought not to be given protection under the copyright law. This reasoning is based on the understanding that originality finds some semblance of intellectual contribution in the human aspect, which is lacking in completely independent AI creation. The U.S. Copyright Office has stated that works generated by AI without human authorship are not eligible for copyright protection.

Minimal Level of Creativity: In the case of a work independently created by AI, there might be a human to program or train the AI. Yet the actual output may not comply with the minimal level of creativity if it is produced solely by the machine's algorithm. Therefore, on account of the lack of that minimal creativity, AI should not be credited for creating any original work.

WORKS CREATED WITH THE AID OF AI

An AI-aided work is created by a human author who uses the AI as a tool. The human author exerts control and makes creative decisions in the course of producing the work. This creates a final work that is authored by the human and not by the AI alone.

Human Authorship: In those cases where a human author does rely on AI tools for producing a work, significant input is contributed from the human in the creation thereof. He or she may guide how AI is used and even decide on creative matters, thus meeting the requirement of human authorship. In such cases, if human intervention is substantially found, the work may be granted protection.

Minimal Level of Creativity: Originality of the AI-aided works always arises from human interaction with the AI. While it is true that the AI may give ideas, the choice of which to use, adjust, or reject lies at the discretion of the human author, thus giving it original features that describe the creative decisions of the human. For this reason, copyright law should deem these works to be original and eligible for copyrightability. The US Copyright Office has noted that, in appropriate circumstances, when AI is deployed as a means, the human user who types the prompts or submits instructions is the author, as long as they possess adequate creative control over the finished work.

A question might arise as to the protection of the work where, for its completion, the human has given the necessary information to the AI software. Simply feeding information to the AI

is generally insufficient to meet the traditional standards for copyright protection. Copyright law typically necessitates proof of human originality and creative authorship, which entails more than just entering data or providing instructions. For instance, in the creation of a literary work such as a fictional story, the author feeds the theme, specific plot, and character description to the AI, and it creates a story with the same. But, in a story, the author also invests his skill in textual expressions, sequential arrangements, tonal settings, and distinctiveness and specificity of the characters. If that is also done by AI, then it would come under the category of an AI-generated work. Otherwise, it would be an AI-aided one, and for the same reason, he may be entitled to protection.

In *Feilin Law Firm v Baidu Corporation*, the Beijing Internet Court addressed the ongoing challenges in making copyright law adaptable to works generated by AI and automated systems. The Court laid stress on the necessity of human creativity for copyright eligibility. In this case, Feilin claimed that Baidu infringed on the copyright when Baidu republished a report generated from Wolters Kluwer's database. The report contained graphics and text automatically generated by software following keywords selected by Feilin. The court ruled that the graphics produced by the software did not qualify as copyrighted works. Since the graphics were entirely based on data from the Wolters Kluwer database, they were deemed not to have been created by a human or a creative agent.¹⁷ The court also found that the text generated by the software was not a literary work under Chinese copyright law. The content was considered to lack original expression, as it was generated automatically from the keywords without reflecting the thoughts or feelings of any human creator.

In *Shenzhen Tencent Computer System Co., Ltd. v Shanghai Yingxun Technology Co. Ltd.*, the Nanshan District Court delivered a judgment that marked a development in China's approach towards copyright protection of AI works. Tencent's AI writing software, 'Dreamwriter', had generated a financial report published on Tencent's website in August 2018. Yingxun copied and reposted the entire article on its website the same day, leading to a dispute. The Court favoured protection of AI works, provided it is shown that there was sufficient human intervention and contribution in creating the work. It laid down four

¹⁷ Zhe Dai and Banggui Zin, 'The copyright protection of AI-generated works under Chinese law' (2023) 13(3) *Juridical Tribune* 247 <<https://doi.org/10.24818/TBJ/2023/13/2.05>> accessed 09 December 2025

requisites of generating an article, namely data service, triggering and writing, intelligent verification, and intelligent distribution.

Considering these factors, the Court opined that Tencent made arrangements and choices in terms of data input, themes expressed in articles, and writing styles, which implies that during the formation of the article, the expression actually comes from a human creator's personalised choice and arrangement.¹⁸ As stated above, in the case of an AI-generated work, the human has fed the necessary information for the creation of the work. But this only satisfies the first requirement of generating an article, that is, data service as aforesaid. But other elements like triggering and writing, intelligent verification, and distribution are absent, which makes the work unqualified for protection. Therefore, it has been established that the law normally requires a demonstration of human originality and creative authorship, which goes well beyond merely inputting data or instructions.

AUTHORSHIP IN THE CONTEXT OF AI WORKS

Authorship in literary and artistic works always finds its basis in the value of human creativity, so that creators are granted ownership rights over their original works and the production of exclusive rights to publishing, financial benefits, rights of ownership transfer of copyrights, and protection of reputation against harmful acts. The copyright law system has taken quite a journey throughout history, from the printing press to AI, which represents a paradigm shift. The extraordinary ability of AI to create literary and artistic works has also fuelled worldwide attacks on frameworks of copyright as we know them.

The US Supreme Court has consistently maintained that copyright protection can be availed of ordinarily only by human authors. This judicial stance narrows the scope of copyright protection and restricts its application to creations that stem from human creativity. A case-law relating to this judicial opinion is *Burrow-Giles Lithograph v Sarony*¹⁹, where the court defined an author as the originator or maker to whom a work owes its origin. The court specifically referred to photographs as the original works created by the author's intellect. Similarly, in the case of *Goldstein v California*²⁰, the Supreme Court reaffirmed that an author

¹⁸ *Ibid*

¹⁹ *Burrow-Giles Lithograph Co v Sarony* [1884] 111 US 53

²⁰ *Goldstein v California* [1973] 412 US 546

is an individual who writes or composes an original work. These legal precedents emphasise the importance of human involvement and creativity in the concept of authorship.

There is a recent case in the US that dealt with the importance of human authorship as an element of creative work. The case is *Thaler v Perlmutter*.²¹ In this case, Stephen Thaler, the creator of an AI system called 'Creativity Machine,' sought to register a copyright for an image created autonomously by the AI, without any human involvement. The U.S. Copyright Office refused the registration, citing that copyright law requires human authorship for protection. Thaler challenged this decision, arguing that the AI should be recognised as the author or that he, as the owner of the AI, should hold the copyright. The court upheld the Copyright Office's decision, affirming that U.S. copyright law has a longstanding requirement for human authorship and that AI-generated works without significant human input do not qualify for copyright protection.

Singapore's copyright law emphasises human authorship, as highlighted in *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd*.²² The Court of Appeal identified four key characteristics for copyright eligibility, noting that the law historically envisioned rights for natural persons, not corporate bodies. The Singapore copyright law does not explicitly define authorship, but it is clear from the language that a 'qualified person' cannot include non-living entities. The Court laid stress on the fact that originality is linked to human creativity, making the identification of a human author a *sine qua non* to the classification of a work as original for copyright protection.

ISSUES AND CHALLENGES

AI can potentially produce a huge amount of work quickly and efficiently. The 'skill and judgment' needed to be counted as original may be provided by programming and parameters used. But a work created with the aid of AI lacks a human author. Where human contribution is provided in a work created with the aid of AI, the human who applied AI may claim authorship. This is not so where a work is completely provided by AI with no human contribution. The issue of authorship in such cases has puzzled all countries of the world. There can be three broad possibilities with respect to the authorship. The first one is

²¹ *Thaler v Perlmutter* [2023] No 22-CV-384-1564-BAH

²² *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] SGCA 37

that the copyright system should recognise authorship for AI. The second one is that there should be no authorship in AI-generated work, and the work should fall into the public domain. Third, one is that there should be sui generis law rather than copyright law to protect such works.²³

The copyright protection is meant to encourage the creativity of the authors. Recognising AI as an author and protecting AI-works under copyright law would equate machine creativity with human creativity. Prioritising or equalising them could ultimately stifle human creativity. Considering AI as the author of a work may cause several issues. The work generated by AI may not be flawless. The AI may use biased and toxic language, which may result in defamation or obscenity or may incite violence on the lines of caste, creed or religion; or produce any other undesired result. In such a scenario, it will be difficult to fix the civil and criminal liability of the AI as it has not been recognised as a person.²⁴ Therefore, if the AI-work happens to be substantially similar to an existing work which has copyright, issues will be created as to holding the AI as the infringer. Further, if AI is treated as an author, it will not be entitled to transfer ownership in the work, in the absence of personhood.

AI works raise challenges as to ownership. While it would intuitively seem that the rights accrue to the person or entity that designed or utilised the AI, this is not straightforward, as there could be many players involved in the creation process, such as developers of AI, suppliers of data or even end-users. In this sense, determining who should be the copyright owner is pretty complicated.

AI contents, whether created independently or with assistance, may be considered derivative works if they closely resemble pre-existing works. In cases where AI learns from copyrighted material and produces similar outputs, these could be classified as derivative works, which are protected only if they have permission from the original copyright holder. The definition of derivative work under the US Copyright Act could loosely be used as a definition of machine-learning when applied to the creation of literary and artistic productions because AI machines can produce literary and artistic content that is almost necessarily based upon

²³ V K Ahuja, 'ARTIFICIAL INTELLIGENCE AND COPYRIGHT: ISSUES AND CHALLENGES' (2020) ILI Law Review 275 <<https://ili.ac.in/pdf/vka.pdf>> accessed 09 December 2025

²⁴ *Ibid*

a dataset consisting of pre-existing works.²⁵ In such cases, moral and ethical concerns are raised. The issue comes when AI-generated content raises problems with regard to attribution and integrity based on the original creation by a human creator on whose work the output relies.

CONCLUSION

The Copyright law is based on the notion of rewarding creativity that has been manifested by a human being. In the technological era, works have been created by humans with the aid of Artificial Intelligence. It would be unethical to protect a work that has been generated by AI without any investment of human intellect. On the other hand, it would constitute injustice if a work is unprotected merely because a machine helped a human create a work when the same has been created through necessary arrangements made by that human. If a considerable amount of skill is needed to make such arrangements, then it will discourage creativity if copyright law does not bring the work within its ambit. The copyright frameworks today do not acknowledge AI as an author because human authorship becomes the main requirement. This is a challenge to the traditional copyright principles regarding ownership, moral rights, and responsibility, particularly on originality. Because AI does not possess human consciousness or creativity, works made by it are considered derivative or purely algorithmic, that is, they lack the 'personal touch', which, under copyright law, makes a work not original. This prerequisite excludes works that are solely created by machines or automatic systems because they lack the human factor. For this reason, the copyright claims of AI-generated content rely on the owner of the AI or the entity using it. It is more of a circumvention than a legally recognised solution.

AI's influence is expanding across all areas of life, prompting legal efforts to regulate its use. In copyright, the prominence of AI raises critical issues regarding authorship and originality of AI-generated and AI-assisted works, necessitating a global solution. Granting copyright to non-human authors poses challenges, particularly when human involvement is absent. Simply placing AI-generated works in the public domain could deter investment from AI developers. WIPO is actively addressing these concerns, and a sui generis system or tailored

²⁵ Daniel J Gervais, 'AI Derivatives: The Application of the Derivative Work Right to Literary and Artistic Productions of AI Machines' (2022) 53(2) Seton Hall Law Review
<<https://scholarship.law.vanderbilt.edu/faculty-publications/1263/>> accessed 09 December 2025

copyright provisions for AI may offer solutions. Ultimately, human creativity should take precedence over machine-generated content, with copyright protection justified only when human input guides the AI.

The existing legal systems are not well-equipped to handle the copyrightability of AI works. The traditional requirements for authorship and originality do not fit well with AI's capabilities, leading to gaps in protection and enforcement. To address this evolving landscape, it may be necessary for lawmakers to rethink copyright principles, considering hybrid models where AI contributions are recognised, or creating *sui generis* protections specifically tailored for AI-generated and AI-aided content. Establishing clear guidelines could help balance innovation and creativity with legal certainty.