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DECODING THE ENIGMA OF COMPETING CLAIMS FOR COPYRIGHTABILITY OF ARTIFICIAL INTELLIGENCE-GENERATED WORKS AND HUMAN WORKS: UNDERSTANDING THE INTERRELATIONSHIP THROUGH THE PRISM OF IPR AND AI

Aditya Raj Gupta[*], Soni Kumari[**] & Narendra Prasad Singh[***]

I. ABSTRACT

Artificial Intelligence (hereinafter 'AI') is a new frontier of innovation in the digital age, brought about by the combination of human intellect with state-of-the-art technology. AI has become a disruptive force in many industries, stretching the boundaries of what is conceivable and upending preconceived notions about human invention. Its use has expanded over the years across fields such as medical science, technology, journalism and transportation. The 2019 Technology Trends report of the World Intellectual Property Organization records this growth, and NITI Aayog's 2018 discussion paper on a National Strategy for Artificial Intelligence similarly notes the increasing use of AI in areas such as education and healthcare. This paper analyses how AI and Intellectual Property Rights have become so intertwined that the rise of AI-generated content has created an intricate and confusing legal problem. It evaluates the legal challenges that arise by examining four questions: (i) whether it is useful to distinguish between computational creativity and human creativity when analysing AI work; (ii) what scope exists for granting legal personhood to AI systems; (iii) how the competing claims of the various stakeholders who could claim copyright in AI work should be resolved; and (iv) who should bear liability for damage or for copyright infringement. The paper concludes by proposing a distinction between AI-made works and AI-

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supported works, together with targeted amendments to the Copyright Act, 1957 concerning the authorship and ownership of AI-generated content.

II. KEYWORDS

Artificial Intelligence, Copyright, Copyright Infringement, AI-made Works, AI-supported Works.

III. INTRODUCTION AND RESEARCH PROBLEM

The term 'Artificial Intelligence' first appeared in the August 1955 proposal by John McCarthy and his co-organisers for a summer research project at Dartmouth College,[1] and the Dartmouth workshop held in 1956 popularised it. Early literature described AI broadly as the ability of machines to perform work requiring human intelligence.[2] India still has no statutory definition of AI.

The European Union, by contrast, has adopted one. Article 3(1) of the AI Act, Regulation (EU) 2024/1689, defines an 'AI system' as a machine-based system designed to operate with varying levels of autonomy, which may exhibit adaptiveness after deployment and which, for explicit or implicit objectives, infers from the input it receives how to generate outputs such as predictions, content, recommendations or decisions that can influence physical or virtual environments.[3] The European Commission's 2025 guidelines explain each element of this definition, notably machine-based operation, autonomy and inference.[4]

AI involves the ability of machines to perform tasks associated with biological cognition, such as learning, problem-solving and decision-making, and it increasingly drives significant advances in business and technology. It influences practically every area of

[1] J. McCarthy, M.L. Minsky, N. Rochester & C.E. Shannon, *A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence* (Aug. 31, 1955).
[2] PHILIP C. JACKSON JR., INTRODUCTION TO ARTIFICIAL INTELLIGENCE 387 (2d ed. 1985).
[3] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act), art. 3(1), 2024 O.J. (L 2024/1689).
[4] Commission Guidelines on the Definition of an Artificial Intelligence System Established by Regulation (EU) 2024/1689 (AI Act), C (2025) 924 final (Feb. 6, 2025).

creation and is used in a wide range of sectors. The availability of copious training data and of high processing power at an accessible price fuels its progress.

The World Intellectual Property Organization ('WIPO') groups AI-related technologies into three dimensions: (i) AI techniques, such as machine learning; (ii) functional applications, such as speech processing and computer vision; and (iii) application fields, such as telecommunications and transportation.[5] NITI Aayog's 2018 discussion paper similarly records the expanding use of AI in sectors such as education and healthcare.[6]

For the purpose of this paper, AI denotes a machine-based system that generates outputs such as text, images or music with varying degrees of human involvement. That involvement ranges from minimal human creative input, which yields what this paper calls 'AI-made' works, to substantial human direction over the expression, which yields 'AI-supported' works.

The research problem lies in the fit between this technology and a copyright regime built around human authors. Section 2(d)(vi) of the Copyright Act, 1957 attributes authorship of a computer-generated work to 'the person who causes the work to be created', but it does not explain who that person is when a programmer, a trainer and a user each contribute to an output, nor how liability should be allocated when an output, or the training behind it, infringes an earlier work.

A. Research Objectives

This study pursues the following objectives:

1. To examine whether AI-generated works satisfy the requirements of originality and authorship under the Copyright Act, 1957.
2. To assess whether the distinction between human creativity and computational creativity serves a useful legal purpose.

[5] WORLD INTELL. PROP. ORG., WIPO TECHNOLOGY TRENDS 2019: ARTIFICIAL INTELLIGENCE (2019).
[6] NITI AAYOG, NATIONAL STRATEGY FOR ARTIFICIAL INTELLIGENCE: DISCUSSION PAPER (June 2018).

3. To evaluate the case for and against conferring legal personhood on AI systems.
4. To analyse the competing authorship claims of the programmer, the trainer, the user and the AI system, and to identify a principled basis for resolving them.
5. To identify who should bear liability for copyright infringement and for damage caused through AI, and to propose suitable amendments to the Copyright Act, 1957.

B. Research Questions

The study addresses the following research questions:

1. Is it beneficial to distinguish between computational creativity and human creativity while analysing AI work?
2. What is the scope for granting legal personhood to AI systems?
3. Given that various stakeholders could claim copyright in AI work, how should their competing claims be resolved?
4. Who should bear liability for damage, or be held responsible for copyright infringement, arising from AI?

C. Research Methodology

This study adopts the doctrinal method of legal research. It relies on primary sources, namely the Copyright Act, 1957, the EU AI Act, decisions of Indian, United States, United Kingdom and Canadian courts, and the order of the Registrar of Copyrights dated 31 August 2026. It also relies on secondary sources, including books, journal articles, reports of WIPO, NITI Aayog and the Department for Promotion of Industry and Internal Trade ('DPIIT'), and reputable online commentary. The study is analytical and comparative: it examines the Indian position on originality, authorship, ownership and liability against the approaches taken in the United States and the United Kingdom.

IV. RESEARCH AND ANALYSIS

A. Understanding the Requirements of Copyrightability in the Indian Context

Copyright is a legal term which describes the rights that a creator has over a literary, dramatic, musical or artistic work, ranging from books, paintings and advertisements to technical drawings and maps.[7] The twin requirements for copyright are (i) originality[8] and (ii) expression of the work in a material form.[9]

1. What Entails Originality?

Originality does not require that the work be the product of inventive or novel thought. In the United Kingdom ('UK'), the courts developed the 'labour, skill and judgment' test, often described as the 'sweat of the brow' approach. In *Walter v. Lane*, the House of Lords held that reporters who transcribed Lord Rosebery's speeches acquired copyright in their reports by reason of the skill and labour they had expended.[10] In *University of London Press Ltd. v. University Tutorial Press Ltd.*, the court held that 'literary work' covers work expressed in print or writing, irrespective of its style or quality, and that the work need only originate from the author.[11] In *Ladbroke (Football) Ltd. v. William Hill (Football) Ltd.*, the House of Lords reaffirmed that literary merit is irrelevant and that the inquiry turns on the labour, skill and judgment invested in the work.[12]

The United States adopted a different standard. In *Feist Publications, Inc. v. Rural Telephone Service Co.*, the US Supreme Court rejected the 'sweat of the brow' doctrine and held that originality requires independent creation together with at least a minimal degree of creativity.[13] The Court stressed that the requisite level of creativity is extremely low and that the quality or aesthetic merit of the work is irrelevant; even a slight amount of creativity suffices.

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[7] The Copyright Act, 1957, § 14, No. 14, Acts of Parliament, 1957 (India).
[8] Eastern Book Co. v. D.B. Modak, (2008) 1 SCC 1 (India).
[9] The Copyright Act, 1957, §§ 13(1), 14(a)(i), 14(c)(i) (India).
[10] Walter v. Lane [1900] AC 539 (HL) (UK).
[11] Univ. of London Press Ltd. v. Univ. Tutorial Press Ltd. [1916] 2 Ch 601 (Eng.).
[12] Ladbroke (Football) Ltd. v. William Hill (Football) Ltd. [1964] 1 WLR 273 (HL) (UK).
[13] Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991).

In *Eastern Book Co. v. D.B. Modak*, the Supreme Court of India rejected both extremes. It declined to accept the pure 'sweat of the brow' approach, and it also regarded the *Feist* 'modicum of creativity' standard as setting the bar too high. Drawing on the Supreme Court of Canada's decision in *CCH Canadian Ltd. v. Law Society of Upper Canada*,[14] the Court adopted a middle path: the work must result from the exercise of skill and judgment, which need not amount to creativity in the sense of novelty or non-obviousness, but must carry a minimal flavour of creativity.[15] This paper applies the *Modak* standard to AI outputs, as Indian law requires. The Registrar of Copyrights applied the same standard on 31 August 2026 when it found that an artwork generated by the AI system DABUS satisfied the threshold of originality under section 13 of the Copyright Act, 1957.[16]

Further, a key element of copyright is the idea/expression dichotomy: an idea is not copyrightable, and only the expression of the idea is copyrightable.[17]

B. Exploring the Grey Areas of Granting Copyright to Artificial Intelligence

1. Essentiality of Human Element in AI

AI and law might work together to accelerate the adjudication of certain types of cases that require minimal human interaction. Because people are usually regarded as intelligent and capable of creating new or inventive works that qualify as intellectual property, it is commonly argued that AI cannot be granted copyright since it does not involve a human being. This paper examines how far that argument holds. In *Naruto v. Slater* (the 'Monkey Selfie case'), a seven-year-old crested macaque named Naruto took

[14] CCH Canadian Ltd. v. Law Soc'y of Upper Can., [2004] 1 S.C.R. 339 (Can.).
[15] Eastern Book Co., (2008) 1 SCC 1.
[16] In re Application of Dr. Stephen L. Thaler, Diary No. 9356/2022-CO/A (Registrar of Copyrights, Copyright Office, India, Aug. 31, 2026).
[17] R.G. Anand v. Delux Films, (1978) 4 SCC 118 (India); *see also* Zee Telefilms Ltd. v. Sundial Commc'ns Pvt. Ltd., 2003 (27) PTC 457 (Bom) (India).

photographs using a camera belonging to the wildlife photographer David Slater, who later published the photographs in a book.[18]

People for the Ethical Treatment of Animals ('PETA'), acting as Naruto's next friend, sued Slater, the defendant, for copyright infringement. The Ninth Circuit held that Naruto lacked statutory standing under the Copyright Act, because the Act does not authorise animals to sue. The court did not rule on animal cognition or on non-human authorship in general. *Naruto* therefore supports only the narrow inference that the statutory scheme presupposes human claimants; the stronger authority on human authorship lies in the decisions discussed below.

2. Current Position on AI Authorship in India and the United States

Indian law already addresses computer-generated works. The Copyright (Amendment) Act, 1994 inserted section 2(d)(vi), which provides that, in relation to a computer-generated literary, dramatic, musical or artistic work, the author is 'the person who causes the work to be created'.[19] The provision locates authorship in a person, not in the machine.

The Registrar of Copyrights applied this clause on 31 August 2026 to Dr. Stephen Thaler's application to register 'A Recent Entrance to Paradise', an artwork generated by his AI system DABUS.[20] The order separated three questions. On originality, it held that the work satisfied the threshold under section 13, applying *Modak*. On authorship, it treated section 2(d)(vi) as the central basis of attribution and held that DABUS, being neither a natural nor a juristic person, could not be entered as author; Dr. Thaler, who conceived and configured the system, supplied and curated the inputs and initiated the process, was the person who caused the work to be created.

[18] Naruto v. Slater, 888 F.3d 418 (9th Cir. 2018).
[19] The Copyright Act, 1957, § 2(d)(vi) (India), *inserted by* The Copyright (Amendment) Act, 1994, No. 38, Acts of Parliament, 1994 (India).
[20] In re Application of Dr. Stephen L. Thaler, *supra* note 16.

On ownership, it kept the question distinct from authorship and held that ownership of a computer system does not, by itself, confer copyright in its outputs. The Registrar further observed that extending legal personality or authorship to autonomous AI is a matter for Parliament, and expressly declined to decide the status of every form of AI-assisted creation. As Dr. Thaler declined to amend the application to name himself as author, the application was rejected.

This order follows an earlier and inconsistent episode. In November 2020, the Copyright Office registered the artwork 'Suryast', naming Ankit Sahni and the AI tool RAGHAV as co-authors; in November 2021, it issued a notice of withdrawal questioning RAGHAV's status as an author under sections 2(d)(iii) and 2(d)(vi).[21] In the United States, the D.C. Circuit in *Thaler v. Perlmutter* upheld the Copyright Office's refusal to register the same DABUS artwork, holding that the Copyright Act requires human authorship, and the US Supreme Court denied certiorari on 2 March 2026.[22]

Tested against these authorities, this paper's thesis takes a more precise form. The 'human element' that copyright requires need not lie in the act of generating the expression; under section 2(d)(vi), the person who causes the work to be created supplies it. The unresolved question is who that person is when several persons contribute, and the Registrar's express reservation on other forms of AI-assisted creation leaves room for the distinction between AI-made and AI-supported works that this paper develops.

3. Distinguishing Human Creativity and Computational Creativity: Is There a Human Element in AI?

First and foremost, it is crucial to distinguish between computational and human creativity when considering AI in the aforementioned context. Many AI systems now mirror human abilities. Consequently, it is important to comprehend the current status

[21] *Indian Copyright Office Issues Withdrawal Notice to AI Co-author*, Managing IP (Dec. 2021), https://www.managingip.com/article/2a5d0jj2zjo7fajsjwwlc/exclusive-indian-copyright-office-issues-withdrawal-notice-to-ai-co-author.
[22] Thaler v. Perlmutter, 130 F.4th 1039 (D.C. Cir. 2025), *cert. denied*, No. 25-449 (U.S. Mar. 2, 2026).

of AI and whether AI may be used to illustrate the part that people play in the creation of creative technologies and creative products.

In this regard, even though AI involves very little human intervention and uses its own framework to generate the output, the output would not have been possible unless a human being had initiated and sustained the process from start to finish, from creating the various parts of the machine to programming, using and training the system. A human element is therefore present at various stages in the production of the final output by the AI system. Further, Peter Norvig and Stuart Russell, two prominent scholars in the field of AI, identify four approaches to defining AI:[23] (i) the Turing Test approach; (ii) the cognitive modelling approach; (iii) the laws of thought approach;[24] and (iv) the rational agent approach.[25]

The first approach, the 'Turing Test' approach, was formulated by Alan Turing in 1950. Turing was an English computer scientist, mathematician, theorist, biologist and cryptanalyst. The Turing Test is a method of inquiry for deciding whether a machine is capable of mimicking human intelligence.

The second approach, the 'cognitive modelling approach', seeks to emulate the computation occurring within the human brain in order to discover new knowledge. On the basis of this approach, an intelligent system known as the Knowledge Growing System was developed. This approach underlies the design of an agent that can act and think rationally like a human being, known as a cognitive agent.

The third approach to AI is 'the laws of thought approach'. Thinking rationally is again an attribute of human beings. According to *Artificial Intelligence: A Modern Approach*, the Greek philosopher Aristotle first attempted to codify 'right thinking', that is, irrefutable reasoning processes. His syllogisms provided patterns for argument structures that

[23] STUART RUSSELL & PETER NORVIG, ARTIFICIAL INTELLIGENCE: A MODERN APPROACH 1–5 (3d ed. 2010).
[24] CAMERON HUGHES ET AL., THE LAWS OF THOUGHT AND THINKING MACHINES 20–24 (2019).
[25] Stephen Hawking, Max Tegmark, Stuart Russell & Frank Wilczek, *Transcending Complacency on Superintelligent Machines*, HuffPost (Apr. 19, 2014), https://www.huffpost.com/entry/artificial-intelligence_b_5174265 (last visited Nov. 1, 2023).

always yielded correct conclusions when given correct premises. For instance, the premises that Socrates is a man and that all men are mortal lead to the conclusion that Socrates is mortal.

The fourth perspective on AI is 'acting rationally: the rational agent approach'. Acting rationally involves pursuing goals in alignment with one's beliefs. An agent, in this context, is something that perceives and acts. This approach views AI as the study and construction of rational agents. The laws of thought approach focused primarily on making correct inferences. While making correct inferences forms part of the rational agent approach, it is not the sole aspect of rationality. In some situations, no provably correct course of action exists, yet a decision must still be made. Acting rationally may also not involve inference at all: a reflex action, such as pulling one's hand away from a hot stove, may be more appropriate than a carefully considered action.

A common factor in all these approaches is the requirement that AI act akin to a human being, either by mimicking humans or by acting rationally as humans do. AI thus performs functions similar to those of human beings, and the human contribution at each stage of its operation broadens the scope for AI work to satisfy the human element required for a copyright claim. There may, therefore, be little scope for a legally meaningful distinction between human creativity and computational creativity.

4. Artificial Intelligence to be Accorded Legal Personhood?

One route to AI legal personality is to treat the AI system as a trustee. Lawrence Solum developed this approach,[26] drawing on John Chipman Gray's *The Nature and Sources of the Law*, which discusses the concept of legal personality.[27] Gray distinguished the legal 'person' from the human being and treated legal personality as the capacity to bear legal rights and duties. On this view, whether an entity should receive legal personhood depends on whether the law should give it rights and duties. In the context of AI, the

[26] Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. Rev. 1231 (1992).
[27] JOHN CHIPMAN GRAY, THE NATURE AND SOURCES OF THE LAW (2d ed. 1921).

question has two prongs: (i) whether AI could serve as a trustee; and (ii) whether it qualifies, on moral grounds, for legal rights and duties such as moral rights.

On the first inquiry, the starting point is the legal consequence of developing a system that can perform tasks a human person performs, for instance a program capable of investing in stocks. Such a system may operate in two stages.

In the first stage, the program acts as an aid to a human trustee in administering the trust. For instance, the program places investment orders through electronic mail or modem, investing in publicly traded securities, and then disburses funds to the beneficiaries through an electronic cheque-writing program. Where the program is informed of an event such as the death of a beneficiary, it follows the instructions in the trust agreement, which may require termination of the trust or a change of beneficiary. The program may also file tax returns. The ultimate investment decision, however, lies with the human trustee, who also reviews the program's activities to ensure that it satisfies the terms of the trust agreement.

The second stage involves a greater role for AI: systems that outperform humans and in which the ultimate investment decision lies with the program. Here, the trust administration program is highly proficient in analysing and implementing the terms of the trust instrument, and the AI system bears a much greater role and responsibility than in the first stage.

The law may therefore need to distinguish between autonomous (AI-made) and assistive (AI-supported) systems of the kind described in these two stages, and their position with respect to legal personhood may differ accordingly. On the first prong, this paper concludes that AI can lawfully act as an aid to a human trustee, but cannot itself be a trustee under present law, because a trustee must be capable of holding property, owing fiduciary duties and being sued for their breach, and an AI system has none of these capacities without statutory personality.

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The second inquiry is whether an AI system justifies a claim to moral rights or is mere property. Section 57 of the Copyright Act, 1957 confers moral rights on the author.[28] An author may claim authorship of the work even after assigning the copyright, and may restrain or claim damages for any distortion, mutilation or modification of the work that would be prejudicial to the author's honour or reputation. In *Amar Nath Sehgal v. Union of India*, where a mural created by an artist and sculptor was pulled down, the Delhi High Court held that moral rights are the soul of an author's works, and that the author has the right to nurture, protect and preserve those creations through them.[29]

The question, then, is whether AI can have moral rights or a personality of its own. Kant grounded personhood in rational nature rather than in membership of the human species: rational beings are persons because their nature marks them out as ends in themselves.[30] One might object that this view presupposes consciousness, intention and emotion, although these claims remain contested. Aaron Sloman and Monica Croucher argued that an intelligent system pursuing multiple goals needs a control mechanism of the kind that emotions provide in humans, so that robots will have emotions in that functional sense.[31]

Even if AI can model emotions computationally, however, it does not follow that AI has the interests that section 57 protects. Section 57 guards the honour and reputation of the author, as *Amar Nath Sehgal* illustrates, and a computational model of emotion does not give an AI system a reputation capable of injury or a dignity that distortion can offend. On the second prong, this paper therefore concludes that AI does not presently qualify for moral rights.

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[28] The Copyright Act, 1957, § 57, No. 14, Acts of Parliament, 1957 (India).
[29] Amar Nath Sehgal v. Union of India, 2005 (30) PTC 253 (Del) (India).
[30] IMMANUEL KANT, GROUNDWORK OF THE METAPHYSICS OF MORALS 4:428 (Mary Gregor ed. & trans., Cambridge Univ. Press 1997) (1785).
[31] Aaron Sloman & Monica Croucher, *Why Robots Will Have Emotions* (Univ. of Sussex Dep't of Cognitive Sci. Tech. Rep., Aug. 1981).

Moreover, personhood is a legal fiction that the law confers for defined purposes, and the Registrar's 2026 order states that extending legal personality or authorship to autonomous AI is a matter for Parliament.[32] Indian law has extended personality to non-human entities, including companies by statute and Hindu idols by judicial recognition.[33] These fictions, however, always operate through identifiable humans who act and answer for the entity: a company acts through its directors, and its members bear its losses. An autonomous system has no such human organs, which makes its personhood a different and far more contestable fiction.

C. Analysing the Different Stakeholders for Authorship in AI-Generated Work

In the case of AI, different candidates or stakeholders could claim to satisfy the requirements of copyrightability, ranging from the programmer and the trainer to the user, the data proprietor and others. This Part analyses the extent to which each qualifies for ownership.

1. Programmer

The programmer makes the major contribution to the existence of an AI system. The main argument for granting ownership to programmers is that, had the programmer not designed, created and trained the software, the work would not have come into existence at all. The programmer builds an independent and sophisticated system through intellectually demanding processes involving significant cost, and that investment arguably deserves reward.

Pamela Samuelson, however, argues against vesting authorship of all AI-generated works in the programmer, because such an allocation would discourage users from disclosing and exploiting outputs and would reduce their incentive to generate outputs

[32] In re Application of Dr. Stephen L. Thaler, *supra* note 16.
[33] The Companies Act, 2013, § 9, No. 18, Acts of Parliament, 2013 (India); Yogendra Nath Naskar v. Comm'r of Income-Tax, (1969) 1 SCC 555 (India).

from the system at all.[34] It follows that ownership of an output should ordinarily vest in the user who lawfully acquires and operates the system, with the programmer's rights confined to the program itself rather than extending to every output it generates.

Samuelson further argues that giving the programmer authorship of every work generated by the AI is problematic from an enforcement standpoint, since it would encourage users to withhold outputs from the programmer and would make it harder to determine whether a given work was actually generated by the AI system. Once a programmer distributes the system to third parties for use, it cannot realistically control or claim the outputs. Further, since copyright rests on the idea/expression dichotomy, the programmer, who supplies the framework rather than the expression of any particular output, is not the person responsible for generating that output. Granting ownership to programmers in every case would therefore depart from settled doctrine.[35]

Burrow-Giles Lithographic Co. v. Sarony is instructive here.[36] The case concerned a photograph of Oscar Wilde taken by Napoleon Sarony. The US Supreme Court recognised Sarony as the author because he posed Wilde before the camera, selected and arranged the costume, draperies and accessories, arranged the lighting and evoked the desired expression, so that the photograph was a product of his original mental conception.

The Court described an author as 'he to whom anything owes its origin; originator; maker'. Applied to AI, the programmer resembles the maker of the camera, who builds the instrument, while the user who directs the arrangement and expression of an output resembles Sarony. On this reasoning, the programmer is not the person best suited to own the output, especially where the user has contributed significant creativity in its arrangement.

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[34] Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. Pitt. L. Rev. 1185 (1986).
[35] R.G. Anand, (1978) 4 SCC 118.
[36] Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58, 60 (1884); *see also* Dan Rosen, *A Common Law for the Ages of Intellectual Property*, 38 U. Miami L. Rev. 769 (1984).

2. Trainer

The trainer is the person responsible for training the neural network. Once the network is exposed to data for developing an output, it requires training. Training is crucial: if the wrong training data is selected, the output will deviate from what is intended and the system may fail.[37] Machine learning depends on the quality and quantity of the input data that the trainer supplies. The trainer therefore has a genuine competing claim to ownership of AI outputs. In most situations the programmer and the trainer are the same person, although they may also be different persons.

Another possibility in this context is a work-for-hire arrangement: where a company hires a trainer to design or train the system, the company should hold ownership and bear liability in cases of infringement. Further, even though the trainer has a good claim to authorship, the trainer may not be the best person to hold authorship of the product where the user has contributed sufficient creativity, skill and judgment.

3. User

As Samuelson argues, the user of a computer-generated work selects, arranges, polishes and edits the raw material into a fixed product that can be exploited commercially. In certain situations, the user may even have more knowledge than the programmer.[38] There may, however, be situations in which the user's role is as minimal as clicking a button, and a more sophisticated AI may require little or almost no human intervention. In such a situation, vesting ownership in the user and making the user responsible for damage or infringement may not be the correct solution. Hence, the programmer or trainer might be given authorship where the end product does not rest on sufficient creativity at the user's end.

In this regard, a distinction may be drawn between AI-made work and AI-supported work, which Part VI of this paper develops. Such a distinction would also ensure that

[37] Thomas Burri, *International Law and Artificial Intelligence*, 60 German Y.B. Int'l L. 91 (2017).
[38] Samuelson, *supra* note 34.

each stakeholder performs its tasks with due care and that no one bears responsibility unnecessarily.

4. The AI System

Another possibility is to accord ownership to the AI system itself. Before doing so, however, one must consider whether legal personality could be accorded to the system.[39] In this context, various entities have been accorded legal personhood over the years. A common example is the company, which the law treats as a separate legal entity, distinct from the people who run or own it.

Further, the scope of legal personhood has evolved over the years, often on the basis of public reasoning and persuasion. For example, the law once denied legal personality to enslaved persons and restricted that of married women, but over time it recognised both as full legal persons. Thus, as Lawrence Solum argues, if the public comes to consider it reasonable, AI could be granted legal personality on the basis of cognitive indicators showing that an AI system operates in a manner similar to the human mind.[40]

Further, the grant of legal personhood often rests on political, legal and moral considerations, which implies that law is not always a simple reflection of a reasoning process. Accepting AI as a legal person is therefore a decision that requires practical considerations, including its impact on society. Another possible basis for granting authorship in relation to AI is the 'work for hire' model, which could be applied to AI-generated works.[41]

In *Community for Creative Non-Violence v. Reid*, a decision under the United States Copyright Act of 1976, the US Supreme Court held that general common law principles of agency determine whether a work was prepared by an employee or by an independent

[39] James Boyle, *Endowed by Their Creator? The Future of Constitutional Personhood*, Brookings Institution, https://www.brookings.edu/articles/endowed-by-their-creator-the-future-of-constitutional-personhood/ (last visited Nov. 6, 2023).
[40] Solum, *supra* note 26.
[41] Annemarie Bridy, *The Evolution of Authorship: Work Made by Code*, 39 Colum. J.L. & Arts 395 (2016).

contractor.[42] The Court treated the hiring party's right to control the manner and means by which the work is produced as central, together with factors such as the skill required, the source of the instrumentalities and tools, the location of the work, the duration of the relationship, the hiring party's right to assign additional projects, the method of payment and the tax treatment of the hired party; applying them, it held that the sculptor Reid was an independent contractor.

Applying the same factors in *Marco v. Accent Publishing Co.*, the Third Circuit held that a freelance photographer was an independent contractor.[43] Indian law addresses the question through section 17 of the Copyright Act, 1957, under which the author is the first owner of copyright, subject to exceptions for certain works made for valuable consideration at the instance of another person and for works made in the course of employment under a contract of service or apprenticeship.[44]

In the context of AI, the work-for-hire model would not ordinarily operate, because an AI system cannot be a party to a contract of service. Section 17 can apply only to the human contributors, for instance by vesting ownership of outputs in an employer where an employee generates them in the course of employment, or where an express contract so provides.

5. Joint Authorship

A common suggestion for allocating authorship in cases of AI is joint authorship among the user, the programmer and the AI. In this context, the meaning of joint authorship under the Copyright Act, 1957 must be examined. Section 2(z) defines a 'work of joint authorship' as a work produced by the collaboration of two or more authors in which the contribution of one author is not distinct from the contribution of the other author or authors.[45] The well-known case of *Najma Heptulla v. Orient Longman Ltd.* concerned the

[42] Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 751–52 (1989), *aff'g* 846 F.2d 1485 (D.C. Cir. 1988).
[43] Marco v. Accent Publ'g Co., 969 F.2d 1547 (3d Cir. 1992).
[44] The Copyright Act, 1957, § 17, No. 14, Acts of Parliament, 1957 (India).
[45] The Copyright Act, 1957, § 2(z), No. 14, Acts of Parliament, 1957 (India).

authorship of the book *India Wins Freedom*, which recorded the experiences of Maulana Abul Kalam Azad.[46] Azad narrated his experiences in Urdu, and Professor Humayun Kabir wrote the text in English.

The court in *Najma Heptulla* distinguished *Donoghue v. Allied Newspapers Ltd.*[47] In that case, Donoghue supplied the experiences of his life to a journalist, Felstead. The court held that copyright belongs to the person who clothes the idea in form, whether by means of a book or a picture, and Donoghue was therefore not given copyright. In *Najma Heptulla*, by contrast, the Delhi High Court held that the book was the product of 'close intellectual collaboration' between Azad and Kabir and could not be considered the sole work of either. The court reached this finding prima facie, on an application for an interim injunction under Order XXXIX of the Code of Civil Procedure, 1908.

In the case of AI, even though the work done by one stakeholder may build on the work done by another, there is no necessary intellectual collaboration between the different contributors. For instance, a programmer or trainer may build an AI system, and a user may then select, arrange and edit, with the output depending on those choices. Even though the output depends on the value each party adds, there is no back-and-forth collaboration between the parties sufficient to satisfy the requirement of joint authorship. Nor can an AI system be a collaborating author under section 2(z): the Registrar's 2026 order confirms that an AI system is not a person capable of authorship, so it cannot be one of the 'two or more authors' that the definition requires.[48]

6. Public Domain

Another argument regarding authorship in AI is that computers need no incentive to create works, so works resulting from AI should be placed in the public domain,[49] as doing so would benefit science, which reflects a utilitarian approach. This approach

[46] Najma Heptulla v. Orient Longman Ltd., AIR 1989 Del 63 (India) (decided Aug. 19, 1988).
[47] Donoghue v. Allied Newspapers Ltd. [1938] Ch 106 (Eng.).
[48] In re Application of Dr. Stephen L. Thaler, *supra* note 16.
[49] Shamnad Basheer, *Artificial Invention: Mind the Machine!*, 13 SCRIPTed 334 (2016).

wrongly assumes that AI systems could generate work out of nothing (*ex nihilo*).[50] Thus, even though AI systems do not require any incentive as such, the human contributors linked to them, such as the programmer and the user, certainly require an incentive to produce the work.

D. Infringement Liability: Training Inputs and AI Outputs

Copyright infringement through AI arises at two stages. At the input stage, developers copy and store works to train AI models; at the output stage, a system may generate content that reproduces an earlier work. Under section 51 of the Copyright Act, 1957, copyright is infringed when a person, without a licence, does anything the exclusive right to do which section 14 confers on the owner, subject to the fair dealing exceptions in section 52, including section 52(1)(a) for private or personal use, including research, criticism or review, and reporting of current events.[51]

On the input side, the Delhi High Court in *ANI Media Pvt. Ltd. v. OpenAI OpCo LLC* refused an interim injunction on 24 July 2026, holding at the prima facie stage that OpenAI's storage and use of ANI's literary works to train its large language models fell within fair dealing under section 52(1)(a).[52] The order is interim, the suit remains pending on the merits, and the order may be appealed; it therefore does not settle the question. On the policy side, a DPIIT committee released a working paper on 8 December 2025 proposing a hybrid model under which AI developers would receive a mandatory blanket licence, with no opt-out, to use all lawfully accessed copyright-protected works for training, coupled with a statutory remuneration right for rights holders and royalties payable on commercialisation.[53]

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[50] Mark Coeckelbergh, *Can Machines Create Art?*, 30 Phil. & Tech. 285 (2017).
[51] The Copyright Act, 1957, §§ 14, 51, 52(1)(a), No. 14, Acts of Parliament, 1957 (India).
[52] ANI Media Pvt. Ltd. v. OpenAI OpCo LLC, CS(COMM) 1028/2024 (Del. HC July 24, 2026) (India) (interim order).
[53] DEP'T FOR PROMOTION OF INDUS. & INTERNAL TRADE, WORKING PAPER ON GENERATIVE AI AND COPYRIGHT, PART 1: ONE NATION ONE LICENCE ONE PAYMENT: BALANCING AI INNOVATION AND COPYRIGHT (Dec. 2025) (India).

On the output side, where an AI output copies an earlier work, liability should follow each party's contribution to the infringing act. The developer is the natural defendant for infringement embedded in the model's training or design; the trainer bears responsibility where it selects infringing data; and the user is liable where it prompts the system to reproduce a specific work, or exploits an output that it knows or has reason to know is infringing. This allocation reflects the view, developed throughout this paper, that liability, like ownership, should turn on the level and kind of each party's contribution.

V. SUGGESTIONS AND RECOMMENDATIONS

The increasing prevalence of AI-generated content requires a thorough re-evaluation of copyright law to address the issues this technology raises. Ensuring equitable recognition and protection for creative works while fostering innovation is a delicate balancing act for policymakers, and several approaches have been proposed. One suggestion is to grant AI systems a legal persona, complete with rights and responsibilities, which would establish explicit ownership of AI-generated content and subject the AI to legal accountability. Another option is copyright licensing, which would allow authors to license their AI algorithms while regulating the scope of content development and the conditions of use, giving producers more control over the final product.

Recognising shared ownership, in which AI systems and human creators are treated as co-authors with separate rights, could be a compromise. Legislators may also consider adjusting the term of copyright for AI-generated content to balance protection against innovation, given the pace of technological development.

Beyond legal considerations, the ethical aspects of AI-generated content must also be addressed. Issues of transparency, disclosure and accountability arise when AI-generated content is disseminated without proper acknowledgment. To avoid misleading consumers and to preserve artistic integrity, creators and organisations must disclose their use of AI in content development. Against this background, this paper makes the following specific recommendations.

A. Distinguishing AI-made and AI-supported Works

This paper proposes that the law distinguish between two categories of work according to the degree and kind of human creative control over the expressive elements of the output. The test is whether a human exercised skill and judgment, in the *Modak* sense, over the expressive form of the output, rather than only over the underlying idea or the decision to generate it.

1. An *AI-supported work* is one in which a human determines the expressive content of the output through selection, arrangement, iterative editing or detailed direction, and uses AI as a tool. For example, a designer who generates draft images and then selects, combines and retouches them into a final composition produces an AI-supported work. The human who exercised that control should be the author under the ordinary rules of authorship.
2. An *AI-made work* is one in which the AI system determines the expressive content and the human contribution is limited to initiating the process or supplying a general prompt. For example, an image generated from a single short prompt and published without modification is an AI-made work. Authorship of such a work should follow section 2(d)(vi), as clarified below.

B. Amendments to the Copyright Act, 1957

Under section 16 of the Copyright Act, 1957, no person is entitled to copyright otherwise than under the Act, although the section preserves any right or jurisdiction to restrain a breach of trust or confidence.[54] Any protection for AI works must therefore rest on the text of the statute.[55]

The Act already contains the core provision. Section 2(d)(vi) makes the author of a computer-generated literary, dramatic, musical or artistic work 'the person who causes

[54] The Copyright Act, 1957, § 16, No. 14, Acts of Parliament, 1957 (India).
[55] Anjana Gopinath, *Drone Journalism and Copyright: An Analysis of the Duo Under Indian Copyright Law*, 163–74 (2022).

the work to be created'.[56] The difficulty is not the absence of a rule but its ambiguity. The programmer causes the system to exist; the trainer causes it to produce a certain class of outputs; and the user causes a particular output to be generated. The clause does not say which form of causation counts, or whether a bare prompt suffices. The Registrar identified Dr. Thaler as the relevant person because he conceived and configured the system, curated the inputs and initiated the process, but in that case all these roles coincided in one individual.[57] This paper therefore recommends targeted amendments rather than the re-enactment of text that already exists:

1. An Explanation to section 2(d)(vi) providing that 'the person who causes the work to be created' means the person who makes the arrangements necessary for the creation of the specific work and exercises control over its generation, and that a user who merely issues a general instruction does not, by that act alone, become the author;
2. A definition of 'computer-generated work' in section 2 confined to AI-made works, so that AI-supported works remain governed by the ordinary rules of authorship in section 2(d)(i) to (v); and
3. A provision that, where more than one person satisfies the test in clause (i), they shall be treated as joint authors notwithstanding the collaboration requirement in section 2(z).

This paper does not recommend amending sections 2(m) and 14(a) to refer specifically to AI works. Those provisions already apply to every literary, dramatic, musical or artistic work, whatever its origin, and the additional text would not change the position for AI works. These recommendations complement the DPIIT working paper, which addresses the input side through its hybrid licensing model and reserves the copyrightability and authorship of AI outputs for a second part.[58]

[56] The Copyright Act, 1957, § 2(d)(vi) (India); *see supra* note 19 and accompanying text.
[57] In re Application of Dr. Stephen L. Thaler, *supra* note 16.
[58] Dep't for Promotion of Indus. & Internal Trade, *supra* note 53.

Further, the judiciary should retain discretion to decide, on the facts of each claim, whether the user or the programmer should be granted copyright.

C. Allocation of Liability for Damage

Liability for copyright infringement should likewise be a fact-based inquiry based on the level of creative contribution of each party. For damage caused by AI, this paper proposes three criteria:

1. Control, that is, which party controlled the operation of the system at the relevant time;
2. Foreseeability, that is, whether the programmer or manufacturer could have predicted the harmful behaviour; and
3. The last opportunity to prevent the harm, that is, whether a party had the knowledge and the chance to avoid it through reasonable precautions. Where these criteria do not point to a single party, liability should be joint.

The 1981 death of Kenji Urada in Japan illustrates these criteria. Urada, a maintenance worker at a Kawasaki Heavy Industries plant in Akashi, jumped over a safety barrier that was designed to cut power to a malfunctioning robot when opened, and apparently started the robot inadvertently; the robot pinned him against an adjacent machine, and co-workers unfamiliar with its operation could not stop it.[59]

Some popular retellings claim that the robot identified Urada as a threat to its goal, but the contemporaneous reports do not support that account. The accepted facts point instead to inadequate safeguards and training, which supports shared responsibility: the operator of the plant for the adequacy of training and precautions, and the manufacturer for whether the hazard was foreseeable and the safeguards sufficient.

VI. CONCLUSION

[59] *Robot Kills Man*, United Press Int'l (Dec. 8, 1981).

This paper has shown that AI work does not necessarily exclude the 'human element' that copyright requires. Under section 2(d)(vi), as the Registrar applied it in 2026, the person who causes the work to be created supplies that element, while originality is assessed separately under the *Modak* standard. The paper has argued that the distinction between human and computational creativity offers limited help in deciding whether AI work should receive copyright, and that the more useful distinction lies between AI-made and AI-supported works, according to the degree of human creative control over the expression.

On legal personhood, it has concluded that AI can assist but cannot presently act as a trustee, that it does not hold the interests that moral rights protect, and that any extension of personality is a matter for Parliament. Among the stakeholders, authorship should depend on a fact-based inquiry into the skill, judgment and creativity each contributes, consistent with the minimal 'flavour of creativity' that the Supreme Court required in *Modak*. Liability for infringement and for damage should likewise follow each party's contribution, control and foresight, according to the criteria set out in Part VI.

Legislators in different countries did not consider AI and similar technologies when they framed intellectual property legislation. Though AI may not have warranted their attention then, it is now a substantial and fast-growing industry attracting significant investment. One commercial market report estimates the global AI market at USD 638.23 billion in 2024 and projects USD 3,680.47 billion by 2034, a compound annual growth rate of about 19.2%, although such forecasts vary considerably between publishers.[60]

It is imperative to understand and deliberate on the problems surrounding AI-generated intellectual property in order to draft legislation that addresses current and future AI-related challenges. If the Copyright Act, 1957 is not clarified, the authorship and

[60] Precedence Research, *Artificial Intelligence Market Size Worth USD 3680.47 Bn by 2034*, GlobeNewswire (June 19, 2025), https://www.globenewswire.com/news-release/2025/06/19/3102350/0/en/Artificial-Intelligence-Market-Size-Worth-USD-3680-47-Bn-By-2034.htm.

ownership of AI-generated works will remain uncertain, leaving creators, developers and users without a reliable basis for their claims.

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