

Exploring the Implications of AI-Generated Work on Copyright Ownership: Assessing the Pros and Cons of Non-Human Ownership in Copyright

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Abstract

The rapid advancement of artificial intelligence has challenged traditional copyright frameworks by enabling the creation of original works without direct human authorship. This paper explores the pros and cons of AI-generated work regarding copyright ownership, focusing on the debate over non-human ownership. It examines whether artificial intelligence systems should be recognised as copyright holders and analyses existing legal approaches that attribute ownership to programmers, users, or employers. The study assesses the potential advantages of non-human ownership, such as incentivising innovation and legal clarity, alongside its drawbacks, including accountability gaps, moral rights concerns, and the erosion of human creativity. By evaluating comparative legal perspectives and policy considerations, the paper argues for a balanced approach that preserves human-centric copyright principles while accommodating technological progress. The analysis aims to contribute to the evolving discourse on adapting copyright law to the realities of an autonomous creative system.

Keywords: Artificial Intelligence (AI), AI-Generated Works, Copyright Ownership, Non-Human Authorship, Authorship and Originality, Legal Personhood of AI, Innovation and Creativity, Copyright Policy and Regulation.

1. INTRODUCTION

When one hears the word ownership, one usually thinks of property; without property, there can be no ownership or possession. The word property has been defined in the case of *Guru Dutt Sharma v. State of Bihar*.ⁱ, property as a legal concept has been defined as a sum of a 'bundle of rights' and, in the case of tangible property, would include the right of possession, right of exclusion, right of enjoyment, right of disposition, right to dispose of the property, etc.ⁱⁱ.

Many jurists have defined ownership. Austin states that ownership means a legal right granted to the individual against everyone, subject to the law conferring the right to put things to the user of an indefinite nature. And a right indefinite in point of the user, unrestricted in point of disposition, and

unlimited in point of duration, when it comes to full ownership. While Salmond says that ownership, in its most comprehensive significance, denotes the relation between a person and the right vested in him. That which a man owns is, in all cases, a right. Also, he states that 'Every right is owned, and nothing can be owned except a right. Every man is the owner of the rights which are his.' Pollock states that Ownership may be described as the entirety of the powers of use and disposal allowed by law to the owner. Holland adhered to Austin's concept of ownership, which asserts that an owner possesses three types of authority: possession, enjoyment, and ownership. These powers, individually or collectively, can be forfeited through leasing or mortgaging.ⁱⁱⁱ

Under Indian law, writers of original works such as plays, musical compositions, artistic films, audio recordings, computer programs, tables, collections, and computer datasets expressed in words, codes, schemes, or in any other context, along with a device readable medium, are all granted copyright protection. Copyright law protects ideas' representations rather than the ideas themselves. Section 13 of the Copyright Act of 1957 protects creative works, including sound recordings, cinematographic films, theatrical productions, musical compositions, and literary works. The individual who conceives an idea of the above-mentioned creative works does not automatically become the copyright holder; instead, copyright is conferred upon the individual who materialises the idea into a tangible form.^{iv} *Donoghue v. Allied Newspapers*^v, it was observed that "Since there is no copyright in ideas even if they are original, the originator of a brilliant idea is not the owner of the copyright in work, unless he is also the creator of the work."

However, as defined in copyright law, this concept of ownership is facing challenges in adapting to the new reality imposed by the accelerated advance of technology, that is, the existence of artificial intelligence and the work created by AI or any animal can generate random and perhaps even independent creative works. One previously unthinkable innovation is the existence of artificial intelligence (AI). Since scholars cannot agree upon a clear definition of artificial intelligence, several attempts have been made to provide a universal definition. "AI can mean different things to different people," our interpretation varies based on the domains and uses in working. Because artificial intelligence (AI) is a dynamic concept, it involves underlying subfield technology and is frequently abused or overused.^{vi} The term Artificial Intelligence comprises two words: "artificial" refers to something that is produced by human beings rather than naturally occurring, and "intelligence" refers to the capacity to understand, communicate, plan, reason, and solve.^{vii}

John McCarthy, one of the pioneers of artificial intelligence, held his first academic conference on the quest to understand whether a computer is capable of thinking. Then, in the middle of the 1950s, he first used the word AI to describe "the science and engineering of making intelligent machines."^{viii} We

used to think that only humans could do learning, reasoning, and perception tasks. Still, thanks to advancements in science and programming, robots are now prepared to perform such jobs based on their intelligence.

Artificial intelligence (AI) refers to computer programs that emulate human cognitive functions such as creativity, learning, intuition, and problem-solving. These AI systems can tackle various challenges across industries, bolstering advancements in security and medicine and ultimately enhancing human welfare. Consequently, the question arises: should copyright protection extend to AI-generated works? This contentious issue perplexes policymakers and presents a significant challenge for judicial systems. Clarifying the authorship of computer-generated works is essential for courts to allocate ownership rights appropriately.^{ix} AI can independently produce artistic, musical, and literary creations without human assistance. AI-generated work and AI-assisted work differ in the degree of human interaction. While AI-generated works do not require human interaction, AI-assisted works require substantial human intervention.^x

1.1 NEED OF THE STUDY

The rapid advancement of artificial intelligence has fundamentally transformed the creation of literary, artistic, and scientific works, raising complex questions regarding copyright ownership. Traditional copyright law is premised on human authorship, originality, and creative intent, assumptions that are increasingly challenged by AI-generated works created with minimal or no human intervention. The absence of explicit legal frameworks addressing non-human ownership has led to uncertainty, inconsistent interpretations, and potential conflicts among creators, developers, users, and rights holders. This study is therefore necessary to critically examine whether existing copyright doctrines are adequate to accommodate AI-generated works or whether alternative models of ownership are required. By assessing the advantages and drawbacks of recognising non-human ownership, the study seeks to contribute to policy clarity, promote innovation, protect human creativity, and ensure a balanced and equitable copyright regime in the evolving digital and technological landscape.

2. OBJECTIVES OF THE STUDY

The present study is carried out with the following specific aims:

- To examine the concept and nature of AI-generated works and assess how they challenge traditional notions of authorship and originality under copyright law.
- To evaluate the advantages and disadvantages of recognising non-human ownership in copyright, with specific reference to innovation, accountability, and moral rights.
- To propose suitable legal and policy reforms for addressing copyright ownership of AI-generated works while balancing technological advancement with human-centric copyright principles.

3. REVIEW OF LITERATURE

Table 1

Literature	Summary	Remarks
1. Aruna Bopche, <i>Analyzing the Scope of Copyright Protection for AI-Generated Works: Juxtaposing the Advantages and Disadvantages of Providing Authorship Rights to a Non-Living Entity From a Juristic and Philosophical Viewpoint</i> Analyzing, 5 INDIAN JOURNAL OF LAW AND LEGAL RESEARCH 1, (2023).	This paper discusses challenges before the lawmakers and a significant question: is an AI-generated work copyrightable? If so, then who would own these rights? This paper analyses the jurisprudence behind the evolution of copyright laws. It also analyses the current status of copyright Laws and judicial approaches. Can AI function without any external assistance? copyright protection for an AI-generated work and its advantages, what the miscellaneous factors underpinning copyright protection for AI work are, and what the approach of international copyright instruments is.	This paper discusses the changing nature of AI-generated creations and emphasises the necessity of establishing a clear framework to tackle their challenges. It suggests that the prevailing approaches taken by numerous nations towards AI-generated content might not optimally foster societal progress. The suggestion to grant copyright protection to AI-generated works, attributed to either the programmer or the AI's owner, presents a possible remedy to this dilemma.
2. Suresh Kumar Dotania, "Ownership of Copyrighted Material Created by Artificial Intelligence: An Indian Law Perspective," 6 INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES 1422-1436 (2023).	This article talks about machine-authored work, the copyrightability of machine-authored works, problems of applying traditional copyright framework, authorship and ownership in machine-created work, and the contributor's rights. It also gives the proposals for the machine-authored works.	The output from this paper is that the basic issues of authorship, distribution, and public benefit still need to be resolved, even though these works would probably fulfill the established legal standards of the Copyright Act and later interpretations.
3. Bo Hu, Yunni Xia, Yiwen Zhang and Liang-Jie Zhang, <i>BIG DATA</i> , Springer 80-88 (2022).	This book introduces the protection of AI creation by examining the copyright systems of the US, EU, and China. It examines the inadequacy and also suggests perfecting the protection of copyright law on AI.	The objective approach addresses the difficulty faced by the original machine author. AI-assisted output should be evaluated based on human intervention, such as data entry, trigger conditions, and template selection. The distinction between human and computer-created art may become blurred as AI becomes more widespread. As computational power increases, new safeguards for AI-generated works may be needed.

<p>4. Faham Ahmed Khan, <i>Intellectual Property Rights for Software, Artificial Intelligence and Computer Related Inventions: A Comparative Analysis</i>, 29 JOURNAL OF INTELLECTUAL PROPERTY RIGHTS, 57 (2024).</p>	<p>This paper discusses the IP protection of four jurisdictions, i.e., the EU, India, the US, and the UK. It analyses the judicial decisions of some cases like Yahoo v. IPAB and Ferid Allani v Union of India. A comparative overview of India, the USA, and the EU has been examined.</p>	<p>It highlights the absence of uniformity on the global stage regarding the extent of patent safeguarding extended to software. The examination of India, the USA, and the EU underscored the distinct approaches these influential legal frameworks adopt concerning software patents. While international mechanisms such as TRIPS offer fundamental principles and guidelines for nations to adhere to, individual interpretations are subject to each nation's discretion.</p>
<p>5. Virendra Ahuja, <i>Artificial Intelligence and Copyright Issues and Challenges</i>, ILI LAW REVIEW 269 (2020).</p>	<p>This paper talks about the history of AI; considering AI as the author of AI-generated work may cause several issues in the UK, India, and Australia, making AI a legal entity. It also analyses the AI and data protection.</p>	<p>The issue of AI-generated works and their public domain is complex and requires a balanced approach. Offering non-human authorship and putting them in the public domain may discourage AI programmers and companies. WIPO is working on solutions; a sui generis system or copyright provisions could help.</p>
<p>6. Sheshadri Chatterjee and Sreenivasulu N.S., <i>Artificial intelligence and human rights: a comprehensive study from Indian legal and policy perspective</i>, 64 INTERNATIONAL JOURNAL OF LAW AND MANAGEMENT, 110 (2021).</p>	<p>This paper talks about Indian laws and artificial intelligence, artificial intelligence algorithms and legal issues, artificial intelligence and discrimination issues, privacy laws and policies, and the liability of artificial intelligence in the Indian legal context.</p>	<p>The research outlined in the paper offers a thorough examination of how AI impacts human rights concerns and the current legislative landscape in India. Additionally, it highlights various governmental policy endeavors aimed at regulating AI.</p>
<p>7. Gyandeeep Chaudhary, <i>Artificial Intelligence: Copyright and Authorship/Ownership Dilemma?</i>, 13 INDIAN JOURNAL OF LAW AND JUSTICE 212 (2022).</p>	<p>This research paper explores legal issues around AI-generated works, such as who the author is and whether copyright law should be amended. This paper examines international and national laws to determine the validity of AI-generated IP and potential challenges, such as who owns the inventions and who can be liable for</p>	<p>The paper mentions "various new legal challenges" but fails to provide specific examples or cases to illustrate the issues. Adding real-world instances would make the text more concrete and relatable to readers.</p>

	<p>damages. It also looks at whether AI-created works can be protected by copyright.</p>	
<p>8. Berna Tugce Kucukali, <i>The Protection of AI-generated works under European Copyright Law: Towards adopting a neighbouring rights approach</i> (2020).</p>	<p>This paper addresses the impact of AI-generated works on copyright law and European Union policy. It points out that generative AI models like DALL-E and Midjourney enable individuals to create works that surpass their creative capabilities, raising questions about the boundaries of copyright law, which is traditionally rooted in human creativity. The research paper seeks to analyse the position of AI-generated works within the EU copyright system and contribute to European policy-making.</p>	<p>This thesis examines the protection of AI-generated works within the European Union copyright law framework. The distinction between works created by humans and AI-assisted creations has become less transparent with AI-generated art. The study investigates whether AI-generated works can be integrated into EU copyright law while adhering to its rules. The study also highlights variations in international copyright systems and legal perspectives on AI-generated works.</p>
<p>9. Rita Matulionyte and Jyh-An Lee, <i>Copyright in AI-generated works: Lessons from recent developments in patent law</i>, 19 (2022).</p>	<p>In this article, we revisit the ongoing discussion surrounding copyright ownership of AI-generated works, pondering the rightful holders of copyright. We delve into court rulings concerning copyright protection for computer-generated works in the UK and China while also assessing the proposed patent ownership allocation rule introduced in DABUS. Additionally, we explore the primary benefits and challenges of implementing an AI-owner rule within copyright law.</p>	<p>The article mentions "court decisions regarding copyright protection over computer-generated works in the UK and China" and the "patent ownership allocation rule proposed in DABUS." Still, it does not provide specific cases, rulings, or details. While the article discusses the UK and China, it lacks a broader international perspective. Copyright law is a global issue, and it would be beneficial to consider how different countries and legal systems are addressing AI-generated work ownership.</p>

4. RESEARCH METHODOLOGY, RESEARCH QUESTION AND RESEARCH OBJECTIVE

Research Objective	Research Question	Research Methodology
1. To examine the legal implications surrounding copyright ownership for AI-generated works in India.	a. How does copyright law apply to AI-generated work in India?	This descriptive research question requires doctrinal research to identify how copyright law applies to AI. It focuses on the legal interpretation and analysis of how copyright law is applied to AI-generated works in the specific legal context of India. This question seeks to understand the legal principles, precedents, and regulations relevant to AI-generated works within India's copyright law framework.
	b. What is the scope and extent of authorship under copyright law for non-human entities in India?	It is a descriptive research question. It specifically pertains to the legal interpretation and analysis of the scope and boundaries of authorship under copyright law in the context of non-human entities within the legal framework of India. It involves examining legal principles, statutes, case law, and doctrines to understand the legal position regarding authorship and copyright for non-human entities.
	c. whether there should be different standards of originality for human and non-human created work in India?	This is an analytical research question. Doctrinal research requires finding the originality of human and non-human created work with the relevant provisions and precedents.
2. To compare India's position with the EU's, US, and UK's	a. How does copyright law apply to AI-	This is a descriptive research question were

<p>position concerning the laws and regulations of AI-generated creative works.</p>	<p>generated work in EU, US & UK?</p>	<p>requires a literature review to understand both jurisdictions' current legal frameworks and case law.</p>
	<p>b. What is the scope and extent of authorship under copyright law for non-human entities in the EU, US & UK?</p>	<p>This is a descriptive research question. a quantitative analysis will examine relevant legal cases and precedents involving non-human entities and copyright law in the EU, US and the UK.</p>
	<p>c. whether there should be different standards of originality for human and non-human created work in the EU, US & UK?</p>	<p>This analysis will help identify trends, patterns, and potential areas of legal ambiguity.</p>
	<p>d. What are the comparative advantages and disadvantages concerning copyright ownership for AI-generated work in the EU, the US, the UK, and India?</p>	<p>This is an analytical research question. In this doctrinal research, there should be different standards of originality for human and non-human created work in the EU, United States (US), and the United Kingdom (UK), which involves a multi-pronged and systematic approach. This is a comparative research question. An extensive literature review will be conducted to understand the existing legal frameworks and copyright laws related to AI-generated content in each jurisdiction.</p>
<p>3. To develop a framework to provide guidance for policymakers, content creators, and the general public for AI-generated works.</p>		<p>This is a descriptive research question. A comprehensive literature review will be conducted to understand existing frameworks and identify gaps.</p>

5. CURRENT LEGAL FRAMEWORK IN INDIA

5.1 Legislation

The Copyright Act of 1957 in India was amended in 1994. This included computer-generated works, such as literary, dramatic, musical, or artistic works. A specific provision, Section 2(d)(vi), was introduced to define the authorship of such works as “the person who causes the work to be created.” There is no possibility for a non-human author to be acknowledged in this perspective. The term "author" is defined in Section 2(d), although it does not mention the other's legal identity. When a work is created under a contract of service or apprenticeship for artificial people, like the government and international organisations, Section 17 offers specific instances of ownership of protectable work. The primary indication that only natural persons are eligible for protection as authors under the Copyright Act of 1957 is the lack of any reference to artificial persons in section 2(d). Section 2(z) specifies the “works of joint authorship,” which means that a work is produced by the contribution of any two or more authors in which the work of one author is not distinct from the others. The suggestion of considering AI and human authors as joint authors of the work so produced is not sound. The reason is that humans do not control all AI operations, and AI can operate without any control.^{xi} So, by observing the Indian Copyright Act, it would be said that originality is not defined in it, and the court has interpreted the criteria of originality on a case-by-case basis, including based on the use of sufficient judgment, skill, and labor or sufficient creativity and judgment in creating the work. In the case of AI, it can produce original work, but the skill, judgment, and labor behind it are difficult to define. Only a natural person may be considered the author of a copyrightable work in Indian law, so AI, as an artificial person, can't be an author.

5.2 Cases

The determination of AI authorship depends on how the term “person” is defined and interpreted in its context. The Indian Copyright Act restricts authorship to natural persons alone. This position was further supported in *Tech Plus Media Private Ltd. v. Jyoti Janda*^{xii}, in which the Court affirmed that authorship cannot be attributed to a juristic person. However, it can be the copyright owner. This interpretation was reaffirmed by the High Court of Delhi in 2019 in the case of *Navigators Logistics Ltd. v. Kashif Qureshi & Ors*;^{xiii} the case centred on a

copyright claim for a computer-generated list, which the Court dismissed due to the lack of human intervention. In the “RAGHAV CASE”, Though incorrectly, the Indian copyright office has acknowledged AI system RAGHAV as a co-author of a creative work and has applied for copyright protection. But in the first case, the copyright office denied the application made by Ankit Sahni, the designer of the AI system RAGHAV, identifying the AI system as the exclusive author of that work. Subsequently, the copyright office contacted Mr Sahni, the human co-author, to discuss the legal position of the AI system RAGHAV after inadvertently granting the registration. This led to the issuance of a notice for removal of the registration.^{xiv} The copyright office website still shows the application status as "registered." The court's ruling is highly significant for the problems with AI systems and intellectual property laws concerning copyright protection in India because it will set the standard for cases of a similar nature in the future since AI systems' sophistication and capabilities are always evolving. A recent case in the Delhi High Court, *Anil Kapoor v. Simply Life India & Ors.*^{xv}, In this instance, the court decided it was against the renowned people's personality rights and the copyright in his dialogues to use generative AI techniques to represent them in made-up settings. Artificial intelligence (AI) is used to create highly disparaging photos and videos of other actresses and the plaintiff. While it's acceptable to utilise generative AI for benign, private, or other legitimate objectives, it's illegal to represent a person without that person's agreement and then exploit the result (such as a picture or a video) for profit.

Indian Government has taken steps such as the ‘AI for All’ policy and the AI Task Force to use AI for social and economic changes. Given the rapid advancement in AI technology, it becomes crucial to re-evaluate the intellectual property framework to ensure that the law keeps pace with these developments. The Indian Copyright Act may be updated to acknowledge AI as authors. However, it is essential to clarify that the ownership of the work should still reside with a natural or juristic person.

6. Pros and Cons of Non-Human Ownership

6.1 Pros of Non-Human Ownership

1. A work that completes all the requirements of copyright laws shall be protected solely for the growth and development of human society.
 - a) An AI-generated work fulfils the Originality criteria of copyright

In India, the primary determination of copyright protection of a work is its originality. If any work is original and meets the minimal creativity criteria, it gets copyright protection. In the present time, technology has also gone far ahead in the creativity and originality of ideas. It is possible to think of a work entirely original in its idea and expression. In the past few years, we have seen various examples of superintelligence-based robots – one example is Sophia. This robot was granted citizenship in Saudi Arabia (De jure recognised as a legal entity) because of its autonomous response system.^{xvi} So, AI fulfils the criteria of originality, and if original work generated by AI is not protected, then there may be no encouragement for the AI developer, and it is easy to pirate.

b) The greater good requires protecting original, creative work AI produces.

AI-generated content cannot be protected without preventing misuse of such copyright-protected content. Because the law does not specify what should be done in response to such deviant activity, people may misappropriate such work and still get away with it. The argument is that since an AI developed the work, it cannot be licenced or registered. Only by adopting a liberal interpretation when determining the extent of a work's copyright protection can legislatures and the judiciary prepare us for the future.

c) Allowing a work to remain unprotected will cause brain drain and deviation among people.

Philosophers contend that having is preferable to having no law at all. We humans are so prone to encroach on others' rights if we find a state of complete anarchy. Therefore, it is essential to have a legal restriction on any deviant action of an individual. If we let the work of an AI be made public with no copyright protection, there is a high chance that other living individuals might misappropriate it, which would, in turn, lead to a brain drain for humankind only.

d) An Intellectual creation of an AI would supplement human intellectuality only.

AI's intellectual creation should be considered a supplement for human intellectuality only. An omnipotent AI can create something that we are not capable of doing. AI can go far ahead and achieve higher intellectuality with its efficiency and accuracy. Due to our natural limitations, it would introduce humans to something we cannot create for now. The work of an AI would introduce human beings with more excellent and better knowledge. Conclusively adding to human beings' collective intellectuality only.

2. Provision for authorship rights of AI-generated work to its programmer, end-user or owner would lead to ambiguity and arbitrariness.

a) The natural person behind such AI-generated work is often unknown.

We have repeatedly witnessed that artificial intelligence (AI) can perform even more effectively than a single human. Occasionally, the nature of the work produced is such that it is impossible to identify the natural person who created it. This can be due to two reasons: either the work was produced in a way that was outside the purview of the natural person assisting in the AI's operation, or several people worked on it who could be considered contributors behind the AI's creation. Expanding the legal framework and giving the AI itself copyright protection for its output would be a more practical course of action.

- b) There is a need for amendments to the current copyright regime to keep up with the pace of developments in the 21st century.

Keeping up with the shifting social paradigm is imperative, as artificial intelligence will play a significant role in the future. As a result, the regulatory and legal frameworks need to be ready for any potential difficulties. It should change the current copyright rules, which restrict its application to humans, and introduce new safeguards for AI-generated works to meet the prevailing challenges. Without a suitable legal framework to handle the concerns surrounding AI-generated labour, the absence of legislation about these matters will remain perpetual.^{xvii}

3. Miscellaneous Factors underpinning copyright protection for AI's work.

- a) The protected works of other authors would be lost due to an AI's uncopyrighted work.

Other copyrighted material will be lost if an AI's output is publicly available without copyright violations. The introductory psychology of humans tells us that, in general, we would rather utilise publicly available content than pay to access anything protected by copyright. These situations provide difficulties from two directions: first, from AI acting as an author, and second, from other real people acting as authors. The uncopyrightability of AI-generated work under the current copyright law prejudicially affects both companies' positions.

- b) Foreign Direct Investments in the Technology sector can be allured by recognising AI-generated copyrightable work.

Granting such economic rights to an AI can advance a country's economic prosperity. More people would be willing to invest in the field if there were a chance to profit from technological advancements. Generally speaking, investors prefer to make money in countries with superior marketing opportunities and the least red-tapism. To fund AI research, industrialists would be more inclined to invest. Investments in AI-generated content will only enhance human intelligence in the long run.

6.2 Cons of Non-Human Ownership

"Fictions of today are turning out to be the fact of tomorrow". However, non-human animals are beginning to blend in with human culture, and their status as natural individuals will never be erased. As a result, it may be difficult for man-made laws to keep up with the rapidly changing times. The current copyright system would be compromised if authorship under copyright were redefined to include non-human authors. There may be severe problems if an AI is given copyright protection for its creative work.

1. Neglecting fundamental theories of protecting intellectual property rights

Several theories under intellectual property justify protecting a work. Deontological justification theories can be broadly divided into three theoretical subfields: labour theory, personality theory, and incentive theory.^{xviii} These subfields address natural justice, economic reasons, and arguments about forming national culture and social cohesiveness.^{xix} These theories maintain that the main focus is on people. Nevertheless, the goal of artificial intelligence appears to be difficult when we attempt to reconcile these notions with the rapidly evolving field.

a) Labour Theory and AI-generated work

According to labour theory, one should bear the fruits of one's labour.^{xx} An individual is entitled to property rights based on the hard labour she/he put into obtaining their respective work. John Locke initially developed this theory about tangible properties; after that, others extended it to intangible properties as well.^{xxi} In the context of human beings, this theory seems to function well in the current copyright regime.

The UK bases its copyright decisions on the Doctrine of Sweat of Bro based on labour theory.^{xxii} The labour theory recognises physical and mental labour to acknowledge and protect their effort – to motivate them to work harder and enhance society's intellectual property. On the other hand, an AI did not make any deliberate mental effort in this circumstance. Nevertheless, the programmer worked hard to design the system to give the AI the information, resources, and training it needed to carry out the task. Furthermore, in the case of an AI author, it seems pointless to encourage them to work towards more creations of this kind.^{xxiii}

b) Incentive Theory and AI-generated work

Incentive or Reward theory argues that we should 'reward an individual for his work which enriches the society'. Recognising or rewarding an author's work provides an incentive to him, which motivates others to make some intellectual contribution to get a reward for their work. Such a copyright system promotes the development of science and arts.

The United States Supreme Court laid down incentive theory in the case of *Sony Corp. v. Universal City Studios*,^{xxiv} Inc., wherein it was held that –

“The monopoly privileges that Congress may authorise are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by providing a special reward and to allow the public access to the products of their genius after the limited period of exclusive control has expired.”

Incentive theory cannot work with artificial intelligence machines. AI is not a sentient being – It cannot feel pain or pleasure, benefit or loss, regret or satisfaction. Therefore, having any incentive for an AI is futile for its purpose. An AI cannot understand or feel anything – it is emotionless – it can only have information about the subject matter and its functioning. It can never consciously sense that like a human being.

To state a universal truth, non-human or non-natural entities were never intended to be the beneficiaries of any "man-made rights," including copyright. Arguably, the AI would continue to function even if we refused to provide it copyright protection for the work it produced; in both cases, the AI would operate comparably. Nonetheless, a copyright for the work produced by the AI should be granted to the programmer or end user of such an AI. It would spur the programmer to continue working and maintain AI's continuous improvement. If not, the end-user would lose out on his years of work in training the AI.^{xxv}

c) Personality Theory and AI-generated work

Georg Wilhelm Friedrich Hegel gave Personality Theory in his “Philosophy of Rights”, wherein he said that – “A person has as his substantive end the right of putting his will into any and everything and thereby making it his because it has no such end in itself and derives its destiny and soul from his will. This is the absolute right of appropriation which man has over all things.”

The life of a human is like a vacant bowl in which you can fill anything of your own choice at your own will, unlike AI. When a human creates any work, it is that individual's will to develop and express such ideas. We are conscious creatures with extremely sophisticated neurological systems. Artificial intelligence (AI) is a machine learning and programming system that operates through a command-line interface to do specific tasks. AIs do not have brains. It is incapable of thinking, which means it was born without intelligence. To do a task, you always need to receive an order.

An artificial intelligence (AI) lacks a personality; the programmer gives the AI a personality based on his preferences. The AI's personality is determined by the kind of data, programming, and learning

applied to its system. Beyond that range, it is limited to a specific set of permutations and combinations. Consequently, an AI cannot make decisions, act independently, or make choices without the programmer's guidance; as a result, an AI cannot be said to possess a personal will. These circumstances have proven to be difficult for our society. For example, in one instance, an AI judge for a beauty pageant competition became prejudiced and disqualified all ladies with darker skin tones in the first round after looking at previous competition data.

2. Ineffectiveness of copyright laws to create a deterrence on an AI

a) The social contract viewpoint

In retrospect, the social contract theory clarified how an appropriate framework evolved to transform civilisation from animal to civilised. That was an agreement between the ruled and their rulers, outlining everyone's rights and responsibilities, and it was about humans. According to the social compact, non-human entities were never intended to be integrated into our human-made social framework. It has always been similar to the idea of "for the people and by the people," which aims to keep the rights and obligations of individuals in check and prevent any individual's rights from being infringed upon.^{xxvi}

b) The Rights and duties balance

According to Hohfeld's notion of the legal relationship, duties and rights are inextricably linked.^{xxvii} Anyone endowed with rights owes it to others to respect those rights and vice versa. Hohfeld's notion of the jural relationship implies an unbreakable bond between duties and rights. Even if we offer copyright protection for an AI's output, we cannot expect the same level of performance from it.

c) Hart's Theory of Punishment and Responsibility and AI as an Author

According to H.L.A Hart, five components of punishment can be defined as (1) It must involve pain or other consequences normally considered unpleasant. (2) It must be for an offence against legal rules. (3) It must be of an actual or supposed offender for his offence. (4) It must be intentionally administered by human beings other than the offender. (5) It must be imposed and administered by an authority constituted by a legal system against which the offence is committed.^{xxviii}

If we apply this concept to AI, then it can be made out with the first element itself that the concept of punishment would be futile on an AI. The deterrence cannot be created against committing anything illegal to violate intellectual property rights.

Punishing AI could not provide general deterrence to other AI-based systems, as AI is not designed to be sensitive to any restrictive measures of criminal law – but AI programmers, proprietors, and its end-users can be deterred with the penal provisions of law. It can discourage those individuals from creating or using systems that cause harm.^{xxix} Depending on the penalty associated with punishment, such as the destruction of an AI, what Mark Lemley and Brian Casey have termed the “robot death penalty.”^{xxx}

Therefore, it can be conclusively said that an AI is not eligible to be punished. It lacks (1) mental states and the deliberative capacities needed for culpability, (2) agency and, therefore, the ability to engage in a voluntary act, and (3) consciousness and thus the ability to be indeed punished.^{xxxi}

3. Lack of Skill, labour and judgment factor

In India, the determination of copyrights is contingent upon skill, labour, and judgement and, in some instances, includes ‘capital’. The Supreme Court recognised it in the case of *Eastern Book Company and Ors. vs D.B. Modak and Ors.*^{xxxii} The court further observed that a work should have minimal creativity to be protected under copyright.^{xxxiii} One needs to grasp the subject matter substantively and procedurally to consider these elements.

Conversely, the AI is limited to action and will never be able to comprehend the subject. Anytime an AI is trained to perform a task, the programmer's effort is required to provide the AI with the tools and data it needs to do the task at hand. An AI is incapable of sensing or understanding labour. It lacks physical and mental subjective consciousness, simply an objective understanding of labour. The primary skill used by an AI to create any task is programming. Capital and labour are never independent of others regarding equipping and commanding. Finally, for AIs that are now in operation, an AI's decision-making process can never be personal. It is evident from the explanation above that personality theory is inapplicable to artificial intelligence. Such copyrightable work-creating systems continually need to be updated, which calls for outside human intervention.

7. DATA ANALYSIS AND INTERPRETATION

An online survey with 100 participants was purposefully developed to gather perspectives on the copyright of images made by AI and humans together. The goal was to provide information to enhance and add to the legal discussion surrounding AI authorship. The survey data is a significant resource for the legal discourse on AI authorship because it provides evidence of how professionals from other professions view the creative process in AI-generated works and its possible implications for copyright law. The authors separated the sample group into three categories based on their professions—Creative,

Legal, and Others—based on a survey with one hundred participants. This allowed them to look at the viewpoints and concepts of each profession. The distribution was as follows: fifty-four individuals in the Creative field, nine lawyers, and thirty-seven in other fields.^{xxxiv} Research scoring criteria are category 5 = Strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly disagree. On the left side of figures 1 to 7, several people who have given their responses to the structured questions have been represented. The following conclusions were reached after it was discovered that there was little difference in the viewpoints of the various professions:

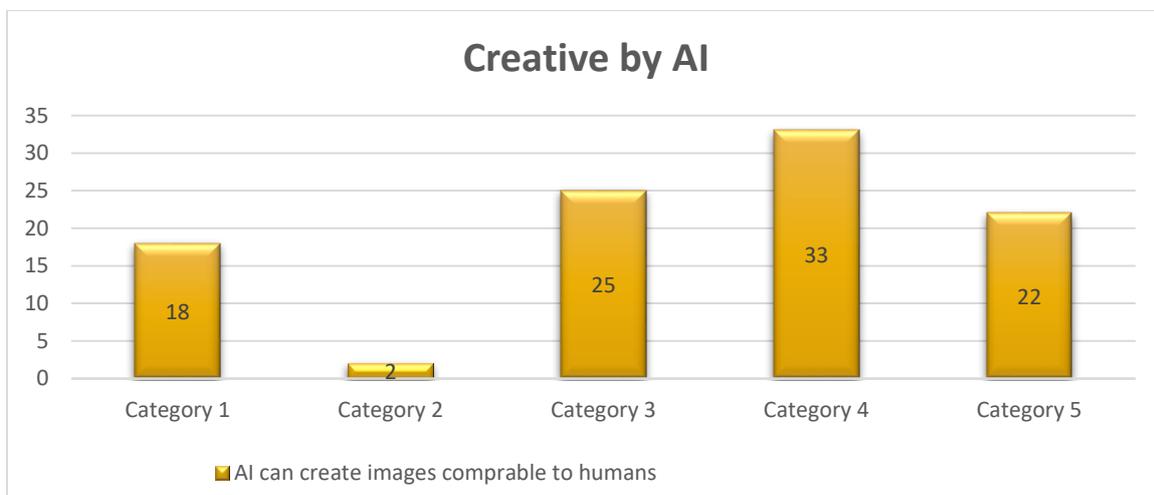


Fig.1

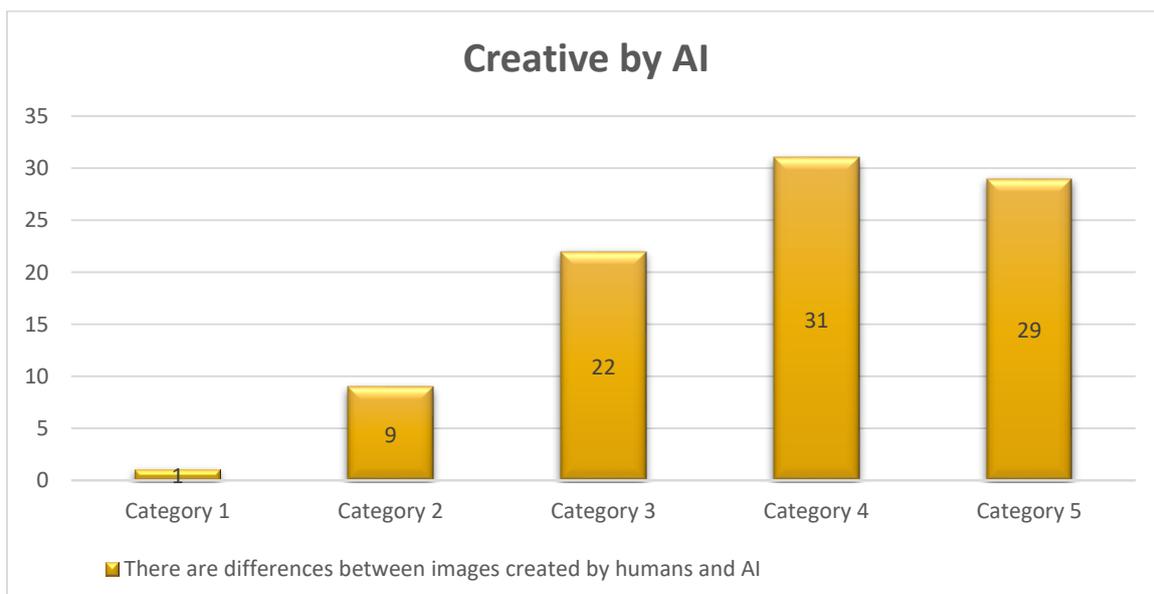


Fig.2

More than half of the sample group agreed, based on Figures 1 and 2, that AI can produce works on par with those made by humans. These works can be identified as being produced by AI or by humans, though.

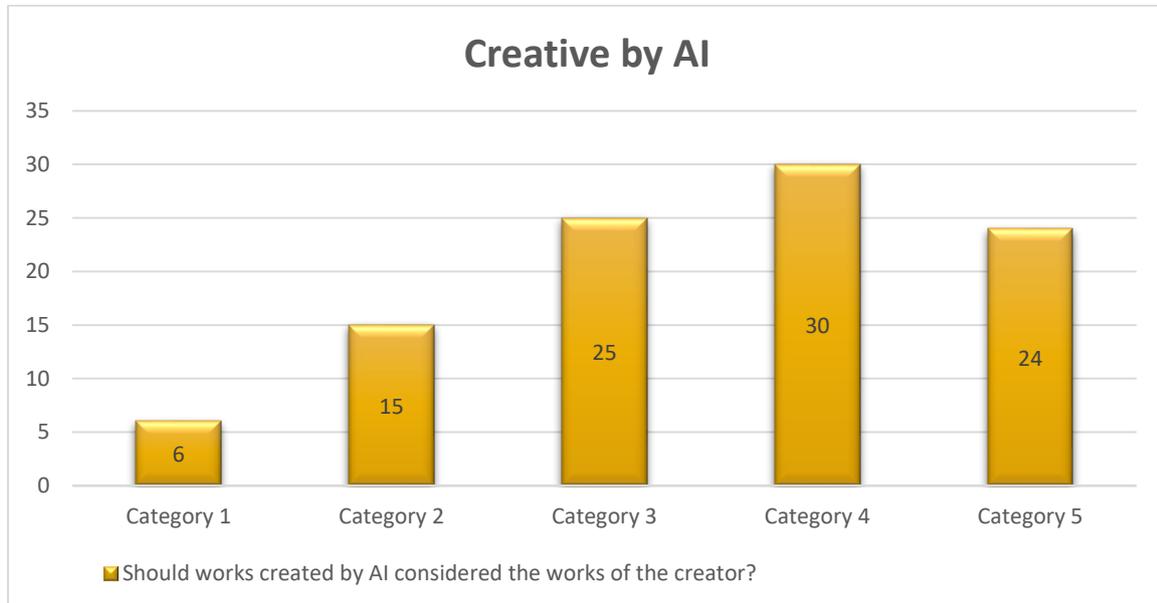


Fig.3

Furthermore, under figure 3 rather from being AI creations, the works produced should be regarded as human.

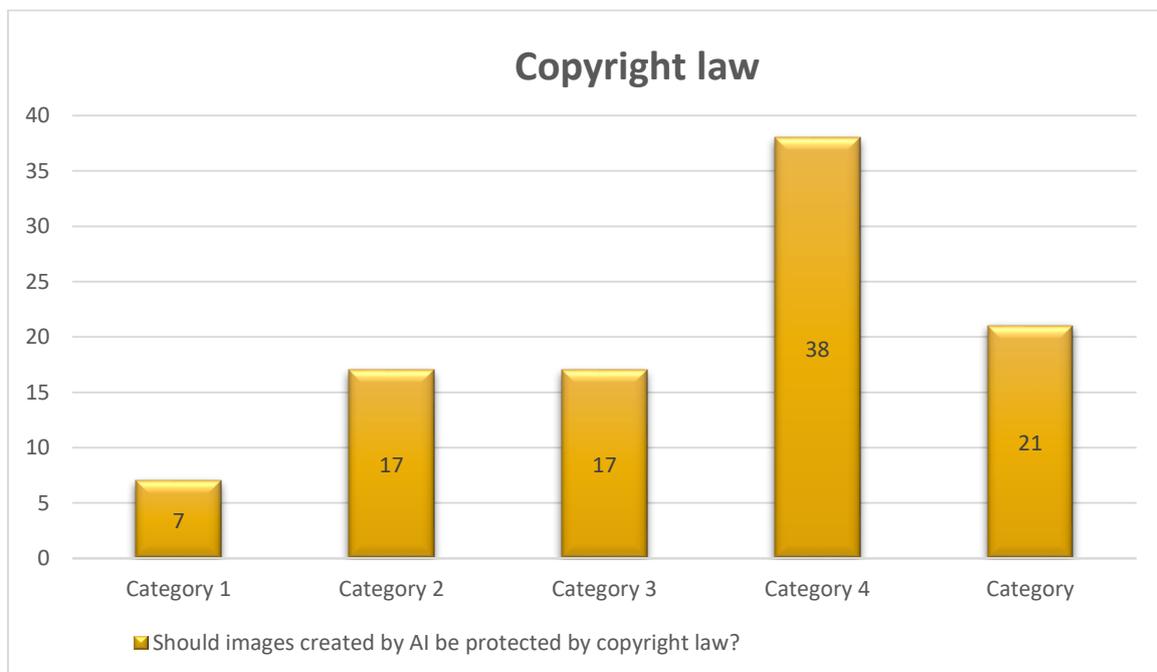


Fig.4

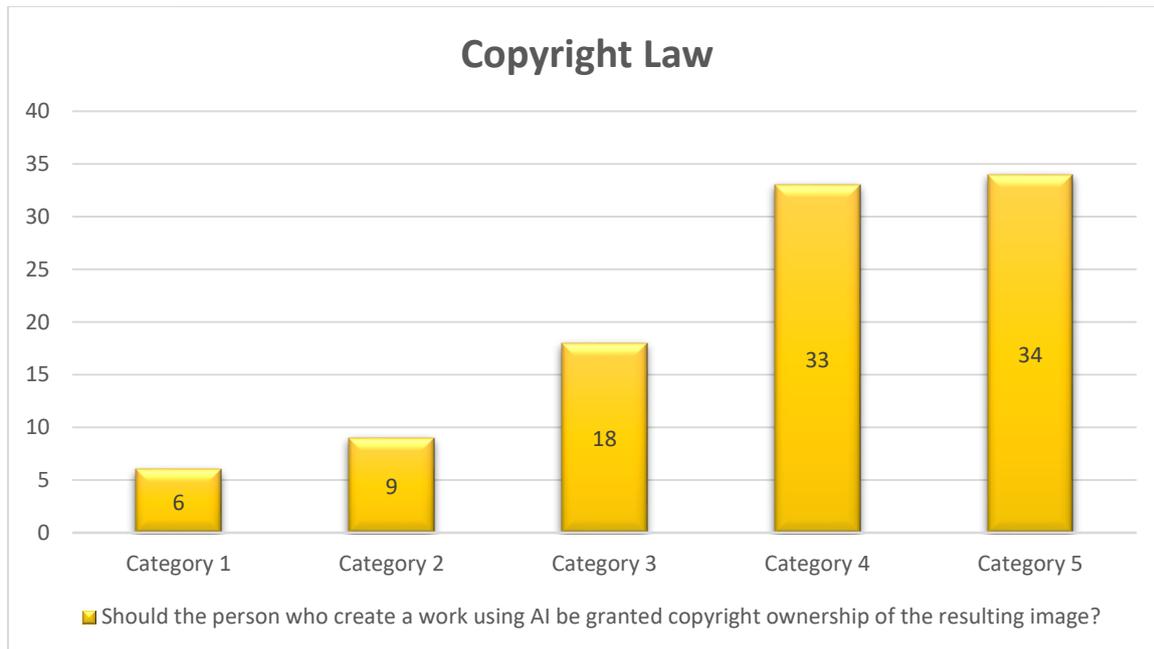


Fig.5

Under Figures 4 and 5, A majority of the sample, 59%, agreed that AI-generated images and works ought to be covered by copyright. Furthermore, 67% of respondents agreed that the work's original creator ought to be the copyright owner and be permitted to exploit it for profit.

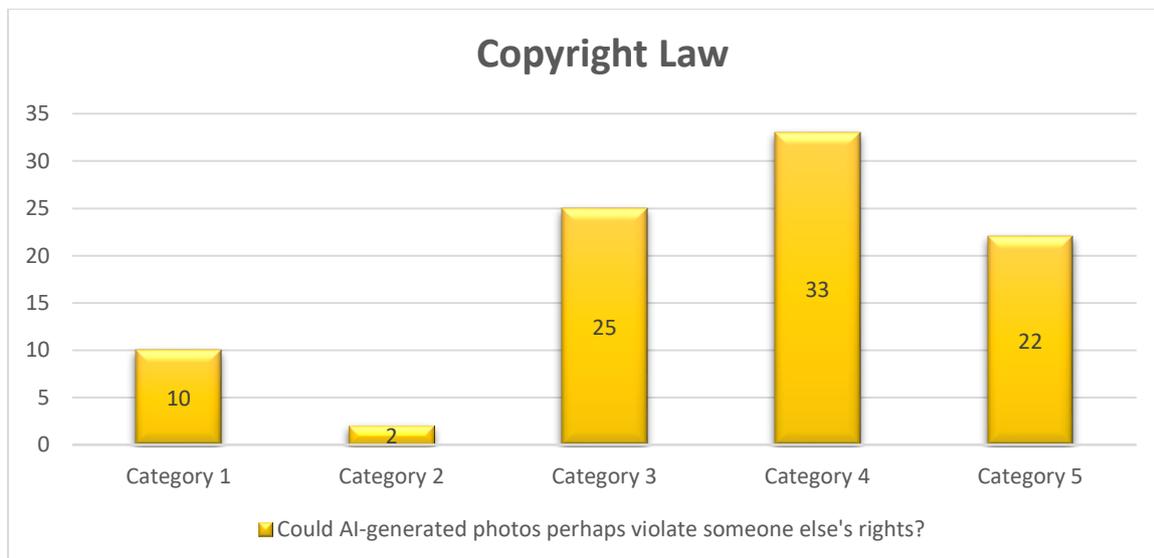


Fig.6

Under figure 6, according to 55% of the respondents, there is a chance that these works violate other people's copyrights.

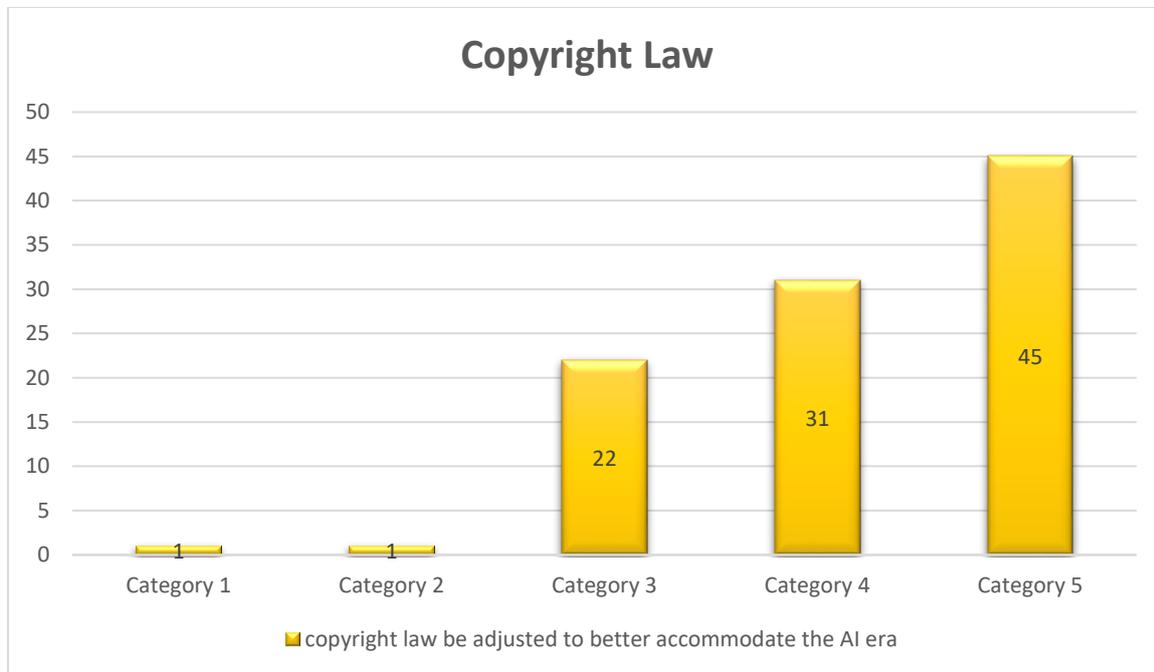


Fig.7

Under Figure 7, regarding the current copyright law, it was asked that it be adjusted to accommodate the AI era better. According to 76% of the sample, rules should be updated and changed to reflect the current circumstances better. This includes establishing special copyright regulations for works produced by artificial intelligence.

So, by observing these data, it can be concluded that due to the emergence of AI, there must be changes made in the law, and the work created by AI must be protected. The study's conclusions make it clear that, to keep up with the quick advancement of AI technology and its effects on the creative industries, copyright laws now in place must be reviewed and updated. Experts in copyright law highlight the shortcomings of the existing legal systems and advocate for changes that would better reflect rapid technological improvements. On the other hand, creative professionals emphasise how crucial it is to create laws governing AI and draw attention to the possible challenges to artists' livelihoods in a world where AI can quickly produce artistic works for commercial purposes. The unified opinions expressed by these professional associations highlight how urgent it is to modify copyright legislation and regulations to meet the unique difficulties presented by artificial intelligence (AI)-generated work, protecting the rights and interests of both artists and the larger creative community.

8. Findings

Table 3. Laws related to copyright protection of AI-generated materials in some countries and international organisations.^{xxxv}

Country/Organization	Protect or not	Protection path	Specific protection measures
Australia	Yes	Copyright Law (Neighboring Rights)	Adopting Neighboring Rights to Protect Computer-Generated Products.
World Intellectual Property Organization	Conditional Protection	Copyright Law, Neighboring Rights	To negotiate copyright or neighbouring rights protection rules for artificial intelligence generative works, the World Intellectual Property Congress adopted a resolution in 2019 titled "Copyright in Artificial Intelligence Generative Works." Nonetheless, in the lack of subject matter eligibility, the mainstream view opposes copyright protection for artificial intelligence generative works.
EU	Yes	copyright, labour rights, etc.	Propose to grant specific rights such as copyright and labour rights to the most advanced level of AI; do not completely deny the possibility of granting legal personality to AI. AI

			Act, recently came in effect.
UK	Yes	Copyright Law	Article 9(3) of the CDPA 1988 provides that computer-generated works are protected by copyright law.
US	Yes	Copyright Law	Registration of software for computers to produce written works.
Japan	Yes	Anti-unfair competition law	Anti-unfair competition laws have now been passed in Japan to defend AI goods and AI investors' interests.
India	Yes	Copyright Law	Under section 2(d)(vi).

9. SUGGESTIONS AND RECOMMENDATIONS

Although the exact nature of the laws that may be established to regulate AI in India is pending certainty, based on international trends, fair practices, and keeping in mind general principles of law, the following may be considered:

Artist's Protection Laws: Establishment of clear ownership and control rights for artists over their works, including AI-assisted or entirely AI-generated art. These could be enforced through the copyright office or a similar government agency.

AI Art Attribution Laws: Clear labelling and attribution for AI-generated art are required, including the artist's name, the AI tool used, and the creation date. This information could be included in the physical work, packaging, and related online materials.

AI Art Revenue Sharing Laws: Establishment of a revenue-sharing model for artists who contribute to AI-generated art, which could be implemented through a legal agreement between the artists and the AI creators. This agreement could be enforced through the judicial system.

AI Art Originality Test: Establishment of a test to determine the originality of AI-generated art. This test could be performed by a government agency or an independent third party, and the results could be used to determine ownership and control rights.

AI Art Contract Laws: Provisions on guidance on the negotiation and execution of contracts between artists and AI creators. This guidance could be a template contract, which both parties could use as a starting point for negotiation.

AI Art Consumer Protection Laws: Establishment of legislation to protect consumers from false or misleading claims about AI-generated art. This law could be enforced through the consumer protection agency, which could investigate and prosecute companies that make false or misleading claims.^{xxxvi}

10. CONCLUSION

Artificial intelligence-based technologies have the potential to be both beneficial and disruptive at the same time. The only way to make them work to our advantage is to have a suitable system to deal with the problems that these advancements present. The current stance that nations have taken towards AI-generated labour does not support the advancement of humans. It is neither advantageous for the AI's proprietors nor beneficial to the other writers. Giving AI-generated works copyright protection would be preferable, either via the programmer or the AI's original owner. It is crucial to retain AI neutrality in these situations. According to Protagoras, the ancient Greek philosopher, "man is the measure of all things." AI should be the yardstick for everything as it increasingly fills human shoes. We may have worse difficulty regulating ourselves than we do regulating AI.

However, in the cases in which AI got the recognition of an author or owner in the Chinese case *Tencent v Shanghai Yingxun Technology Co. Ltd*^{xxxvii}, Tencent persuaded the court that the developer of an AI-generated work should be the software developer as they added originality. The developer's decisions in establishing the standards for the selection and arrangement of preexisting data, which the AI then used to finish the selection and arrangement, were deemed to have originality by the court. In the "RAGHAV CASE", Though incorrectly, the Indian copyright office has acknowledged AI system RAGHAV as a co-author of a creative work. In the EU, Artificial Intelligence Virtual Artist (AIVA) Technologies' "music composing AI becomes the first in the world to be officially given the status of a composer". In the UK, in *Nova Productions Ltd v Mazooma Games Ltd*^{xxxviii}, it was observed that the programmer was the person who made the arrangements, and therefore, the programmer was the author and owner of the copyright. So, in this case, the interpretation can be drawn that in AI, the programmer would be given protection for the work generated by AI. In the US, the case of *Urantia Foundation v. Maaherra*^{xxxix} involved a psychographic work, which is a work created with the help of spirits, voices or other supernatural beings, and, despite the litigants' assertion that the work was from a non-human

supernatural origin, the court found a sufficient nexus to human creativity to grant copyright protection. Sophia, a robot, has been granted citizenship by Saudi Arabia; DABUS is considered an inventor in Australia and South Africa. A legislative proposal was presented in South Korea to alter the copyright laws in that country. The idea aims to achieve a fair balance for protecting the contributors by stating that an AI developer who developed an algorithm or a human artist who supplied data for AI learning may also be a copyright owner. Additionally, the proposal stipulates that the author of an AI-generated work must declare in the registration procedure that the work was developed using AI and that the copyright for such works expires five years after they are made public. It is difficult to forecast if this plan will be implemented. However, AI generation efforts will greatly increase if it is implemented. So, by seeing these cases, it is considered that in the coming future, AI must be recognised under copyright laws.

The advantage of giving copyright ownership to AI is that it will fulfil the criteria of creativity. Such uncopyrighted work would lead to brain drain among humans because they are inclined to use those things. If the person behind the making of AI is unknown, then it would be better to give authorship to AI in the confusion of developer, user, and owner. It will also lead to economic developments and attract industrialists to invest in it, with protection.

While providing protection for AI, there are undeniable drawbacks that cannot be ignored. For instance, the potential for infringement of Intellectual Property Rights (IPR) arises. Without adequate rewards and economic support for its developers and manufacturers, AI's functionality would be compromised. Personality theory posits that an individual's experiences and characteristics influence their creative output. Unlike humans, AI lacks personal agency or emotional depth—it merely executes tasks as programmed by humans. Moreover, the absence of consciousness in AI precludes the possibility of experiencing punishment or pleasure, as outlined by the deterrence theory. Consequently, the limitations imposed by IPR on AI are blurred, potentially leading to violations of economic and personal rights.

To wrap up, the realm of AI copyright law is continuously shifting, with the EU, US, UK, and India each showcasing distinct approaches that reflect this dynamic evolution. While all four jurisdictions acknowledge the copyrightability of AI-generated creations, their methods in dealing with AI and copyright vary. Although each approach possesses its own merits and drawbacks, it remains crucial to closely observe the advancements in AI technology and how they influence copyright legislation.

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