INTERNATIONAL JOURNAL OF LEGAL

SCIENCE AND INNOVATION

[ISSN 2581-9453]

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Artificial Intelligence and Automated Content Creation: Copyright Scenario in India

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Abstract

Artificial Intelligence ("AI") has constantly evolved over the years and has become of significant use in today's times as an automated content creation tool in the digital world. AI programmes can create automated literary content in a faster, consistent and cheaper way as compared to the creation of content by a human. However, with the benefits of using these tools, one cannot oversee the concerns that arise in the intellectual property domain. There remains a lack of clarity in the law as to whether the authorship and ownership of works that are automated content would be granted to the AI or the user of such technology. This paper focuses on the issue of authorship and copyright ownership in the works generated by AI in India.

In this paper, after an introduction to the concept of automated content creation, it is proposed that as AI is not a natural person and cannot exercise most rights associated with copyright by itself, AI should be treated as a co-author along with the user of the AI. The owner of the copyright in the automated work will be the user of such AI technology. In addition, the paper further suggests certain amendments to fill the vacuum in the Copyright Act, 1957 with respect to authorship, ownership of the copyright in automated content, as well as other liabilities that may arise in cases of intellectual property infringement caused by the content generated by AI. This paper further addresses the need for the introduction of new policies and regulations to resolve issues revolving around liability and accountability in cases of defamation, libel and other civil and criminal wrongs.

I. Introduction

The intellectual creations of humans in the form of original dramatic, literary, artistic, musical works, cinematographic films and sound recordings have been afforded protection under the Copyright Act, 1957 of India.[4] However, with the advent of Artificial Intelligence ("AI") as the

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[4] The Copyright Act, 1957, § 13, No. 14, Acts of Parliament, 1957 (India).

next and fourth industrial revolution,[5] there have been several occasions where intelligent robots have demonstrated their ability to be creative and generate original works of authorship. Over the years, AI has developed and is now widely used as an automated content generation tool in the digital world, including social media platforms, news websites as well as blogs to generate captions for photos, news articles, literature and much more. There are several examples where humans have used AI to generate content using natural language processing, machine learning, deep learning and social listening. It's proven beneficial in most cases because AI enables faster, cheaper and consistent creation of content.

With the increasing involvement of AI technologies in the content generation process, there evolves a dilemma as to who is the author and owner of these copyrightable works generated by AI. This issue of authorship persists and only becomes more important with the increasing sophistication and use of AI. Taking into consideration the creative computational abilities of AI technologies, it is extremely important to examine the authorship status of AI and whether it is desirable to grant authorship or co-authorship to AI. There have been several takes on this issue. Some scholars attribute authorship of AI-generated works to the AI, the user of AI[6] or the programmer of AI,[7] whereas some scholars have argued that such works should be released into the public domain immediately[8] and should not be granted copyright protection. Attributing the authorship or ownership of copyright works developed by AI to the AI programmer would be unreasonable as the role of the programmer is restricted to developing the AI technology. He can seek copyright protection for his original inputs in the AI algorithm itself. However, when the programmer is not the user of AI, there would be no involvement of the programmer in creating the works derived from the AI technology. For these reasons, it is desired that the programmer is not vested with copyright in the said works. Further, the other option of releasing all the copyrightable works generated by AI into the public domain also seems unreasonable. In this case, there would be no incentive for the programmers and users of AI to generate creative works. Considering the speed and efficiency at which AI can generate content, it will be extremely difficult for humans to create works that are original and not already in the public domain published by an AI. The conflict now remains between two options: whether AI should be considered as an author or whether it should be considered as a co-author along with the user of such AI for the works generated by automated processes.

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[5] Bernard Marr, *The 4th Industrial Revolution And A Jobless Future - A Good Thing?,* FORBES (Mar. 3, 2017), https://www.forbes.com/sites/bernardmarr/2017/03/03/the-4thindustrial-revolution-and-a-jobless-future-a-good-thing/ [https://perma.cc/R433- 4ACF.

[6] Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. PITT. L. REV. 1185, 1227 (1986).

[7] Kalin Hristov, *Artificial Intelligence and the Copyright Dilemma*, 57 J. FRANKLIN PIERCE CTR. INTELL. PROP. 431, 440–41 (2017).

[8] Victor Palace, *What If Artificial Intelligence Wrote This? Artificial Intelligence and Copyright Law*, 71 FLOR. L. REV. 217, 238, (2020), https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1439&context=flr.

The legal vacuum on this issue is particularly evident and needs to be addressed at the earliest as developments in AI inevitably advance. This paper focuses on works that are created with some kind of human intervention in the entire process of content making. Works created by AI autonomously, i.e., without human intervention, are out of the scope of this paper. In this paper, the authors propose to consider AI and the user of the AI as the co-authors of AI-generated works in India while explaining how granting sole authorship to either the AI or the user is not a sound approach. The legal aspects of co-authorship under the Indian copyright regime are highlighted for establishing the grounds of granting co-authorship to AI. The paper concludes with some suggestions for amendments to be made in the Indian law to solve this dilemma.

II. THE CASE FOR CONSIDERING ARTIFICIAL INTELLIGENCE AS A CO-AUTHOR

Before the authors explain the suitability and rationale of considering AI as a co-author in the works created by it, along with some contributions by a human in the process, it is essential to understand how AI qualifies as an author under the copyright regime in the first place.

(A) AI as an Author

Under the Copyright Act, 1957 of India, Section 2 (d) defines the term "author". After the amendment in 1994, the Copyright Act, 1957 provides that in cases of computer-generated works, the author is the "person who causes the work to be created."[9] There is no other specific reference to the legal personhood of the author. Under the current Indian copyright regime, there exists no provision which expressly allows or restrict considering artificial persons as authors. A similar provision is found in the laws of the United Kingdom,[10] Ireland[11] and New Zealand,[12] wherein in cases of "computer-generated works", the authorship is affixed on the person who makes necessary arrangements for the program.

There has been a general trend in Court decisions across the globe wherein AI has not been recognised as an author under copyright law. In India, the Delhi High Court in Camlin Pvt. Ltd. v. National Pencil Industries[13] and Tech Plus Media Private Ltd. v. Jyoti Jandla[14] has held that authorship requires the involvement of a natural person and juristic persons cannot be called an author in the context of copyright. The Hon'ble Judge in a United Kingdom Court in Express Newspapers v. Liverpool Daily Post[15] considered a computer as a "tool" in the same way a pen is considered as a tool to write content. The Court went to the extent of saying that attributing a computer as an author of the work would mean

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[9] The Copyright Act 1957, § 2(d) (vi), No. 14, Acts of Parliament, 1957 (India).

[10] Copyright, Designs and Patents Act 1988, c. 48, § 9(3) (U.K.).

[11] Copyright and Related Rights Act 2000, pt. II, ch. 2, § 21(f) (Act No. 28/2000) (Ir.).

[12] Copyright Act of 1994, § 5(2)(a) (N.Z.).

[13] Camlin Pvt. Ltd. v. National Pencil Industries, AIR 1986 Delhi 444.

[14] Tech Plus Media Private Ltd. v. Jyoti Jandla, (2014) 60 PTC 121.

[15] Express Newspapers v. Liverpool Daily Post, [1985] 3 All ER 360.

that the pen is an author of the work rather than the person using the pen.

However, an amendment is required in the section as the words "computer-generated" indicate an assumption that AI is merely a tool for creation and does not possess any creativity by itself. Due to the advancement of technology, AI today is completely capable of authoring original content with human inputs. There are several examples to prove that AI is intelligent enough to produce original copyrightable works to be recognised as an author. For instance, newspapers and news portals like Los Angeles Times[16] have been using AI to generate news articles, a computer programme named 'Racter' can create original poems,[17] AI-based software created by International Business Machines called 'Watson Beat' creates original songs,[18] deep learning and facial recognition have been used to create the very famous painting called 'The Next Rembrandt'.[19] Numerous startups in India have also been using AI for content creation, such as the Bangalore based startup 'Rephrase.ai', which uses AI to create marketing and promotional video content for businesses.[20] Several Indian artists are using AI algorithms like 'Tandem' to create canvasses and various forms of art.[21]

It is evident from the above examples that AI can generate copyrightable works. AI, as the name itself suggest, is artificially intelligent enough to create original copyrightable works, whether or not it is supplemented with human interference. AI is an integral part of the process of creation of the work. AI partially depends only on the raw data fed to it. Thereafter it creates an output resulting from its own "creativity, learning, understanding and processing". With respect to the requirement of originality, the Indian Supreme Court in Eastern Book Company v. D. B. Modak[22] has laid down the "modicum of creativity" test. The test of skill and judgment and minimum level of creativity is satisfied as the AI creates an unpredictable outcome by processing data that can be equated to creativity. AI does not merely copy other original work from its data,[23] but it also generates new original work which can at least satisfy the lowest requirements for originality.[24] Therefore, AI can be called an author because of the creative input that it provides.

The same has also been recognised by a Shenzen Court in China in 2019 in the case of Shenzhen

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[16] Ken Schwencke, *Earthquake Aftershock: 2.7 Quake Strikes near Westwood,* Los Angeles Times, (March 17, 2014, 7:53 AM), https://www.latimes.com/local/lanow/earthquake-27-quake-strikes-near-westwood-california-rdivor-story.html. [The article has written by Algorithm].

[17] Josef Ernst, *Computer Poetry: An Act of Disinterested Communication*, 23 New Lit. Hist. 451, 455-459, (1992), https://www.jstor.org/stable/469245

[18] IBM WATSON, http://www.ibm.com/watson/music/uk-en (last visited Feb. 7, 2022).

[19] THE NEXT REMBRANDT, https://www.nextrembrandt.com (last visited Feb. 7, 2022).

[20] REPHRASE.AI, https://www.rephrase.ai/ (last visited Feb. 7, 2022).

[21] Anesha George, *Meet the Indians Using Artificial Intelligence to Create Art*, Hindustan Times, (March 31, 2019, 5:44 PM), https://www.hindustantimes.com/art-and-culture/meet-the-indians-using-artificial-intelligence-to-create-art/story-t6bL8UA0IG9WRW0IxwPmEK.html.

[22] Eastern Book Company and Ors. v. D. B. Modak and Anr, (2008) 1 SCC 1.

[23] Palace, *supra* note 5, at 232, 233.

[24] Samuelson, *supra* note 3, at 1199.

Tencent v. Shanghai Yinxun.[25] It was held that works created with AI are done through a creative process, and thus the works would be a literary work eligible for copyright protection under Chinese Law. The Court highlighted that the AI has practised "selection, analysis and judgment of the data available" and hence the work was copyrightable and original.[26] Applying the same principle to AI-generated works in India, since such works may possess a certain artistic flair, creativity, judgment and processing which is executed by the AI, they should be eligible for copyright protection as original works authored by the AI. The Chinese Courts have been reasonably foresighted in interpreting the Chinese copyright in complement with the rapid technological advancements. The same approach also needs to be adopted by India.

(B) AI and the User of AI as co-authors

Although the concept of fully integrating AI creative work while making it the sole author all across the prevailing copyright law might be too far-fetched, a more pragmatic resolution can be adopted as a consensus between AI being the author and the non-removal of the human element from the same.[27] Under the concept of joint authors, there needs to be an intention from the authors to contribute to the copyrightable work, and the contribution needs to be that of more than mere ideas. The development of AI, including but not limited to news pieces, blogs posts, poetry and art, are a few things that can be created with the help of algorithms. Although the algorithm is considered to be 50% of the work and the other 50% is data. AI system learns from data, leading to the creation of an algorithm. The person who contributes the data as well as the AI system both play a major role in the creation of automated content. When AI is given the status of co-authorship, the question that might arise is who would be given the co-authorship besides AI and who is benefitting from this particular arrangement. We can state that the main focus in these situations would lie on human intervention despite the outstanding intelligence of AI. When a human is given the co-authorship and ownership of copyright, then the acceptance of humans and AIs as co-authors increases.[28]

a. Indian Scenario:

In India, joint authorship has been defined in the Copyright Act, 1957 under Section 2 (z) as a work made by two or more authors when they collaborate together and where the contribution of each author cannot be differentiated from the other author or authors.[29] The term co-author has

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[25] Shenzhen Tencent v. Shanghai Yinxun, (2019) Yue 0305 Min Chu No. 14010.

[26] Ju Yoen Lee, *Artificial Intelligence Cases in China: Feilin v. Baidu and Tencent Shenzhen v. Shanghai Yingxi*n, 7 China & WTO Rev. 211, 216, (2021), https://pdfs.semanticscholar.org/b61c/cb98fd748b7e e654895ee133d5363e4d8556.pdf.

[27] Veronica Acevedo, *Original Works of "Authorship authorship": Artificial Intelligence as authors of Copyright*, SETON HALL UNIVERSITY (Feb. 5, 2022, 7:12 AM), https://scholarship.shu.edu/cgi/view

content.cgi?article=2270&context=student_scholarsh ip

[28] Guilherme F. Nobre & Artur Matuck, *Communicative and Artistic Machines: Some Remarks on Authorship, Copyright, and Liability*, 5 INT. JOUR. HUMAN. APP. SCI. 145, 146, (2016), https://www.researchgate.net/publication/337324478 _Communicative_and_Artistic_Machines_some_rem arks_on_authorship_copyright_and_liability.

[29] The Copyright Act, 1957, § 2(z), No. 14, Acts of Parliament, 1957 (India).

been derived from the concept of joint authorship.

The Indian courts in various cases, namely, Malabar Fisheries Co. v. CIT, Kerala,[30] Rajendra Kumar Sharma v. Brijendra Kumar Sharma,[31] Nav Sahitya Prakash and Ors. v. Anand Kumar and Ors.,[32] and Angnath Arts Pvt. Ltd. v. Century Communications Ltd.,[33] it has been held that joint authors are also considered to be the joint owners of the copyrightable work and an author cannot exploit the rights given under the Copyright laws without the permission of the all the authors of the work, however, in the scenario of AI, an exception needs to be created with respect to the exploitation of transfer and licensing rights where the human authors can solely utilise the rights given under the laws, and the permission of AI should not be required as they don't have the status of a legal person and cannot give permission or enter into a contract.

A major recent development in India is that it became the first country in the world to have given the status of a co-author to an AI painting app called RAGHAV for its creation called Suryast.[34] The owner of the AI painting based app Mr. Ankit Sahni fed in a photograph taken by him and Vincent Van Gogh's painting titled Starry Night. The AI painting based app used the photograph provided by the owner and the painting created by the famous painter to create its own painting. Mr. Ankit Sahni filed an application in the Copyright Office for the Suryast painting, where RAGHAV was the sole author in the registration application. The Copyright Office rejected the aforementioned application; however, in November 2020, Mr. Ankit Sahni filed another application where Mr. Ankit Sahni himself was listed along with RAGHAV as the co-author of the work, and this registration application was accepted by the Copyright Office. The second registration application was presented as a "classified submission" to the Indian Parliamentary Standing Committee on "protecting AI-created work as well as AI itself." The recognition of an AI painting based app is a milestone in the arena of both AI as well as Intellectual Property Rights.

b. Najma Heptulla Case:

In the landmark case of Dr. Najma Heptulla v. Orient Longman Ltd. & Others,[35] the court observed that in the book written by one Professor Kabir, co-authorship should be granted to Maulana because it was inferred by the Court that Professor Kabir made notes of the ideas given in Urdu language by Maulana and the writings were then published as a book. The court stated that both Professor Kabir and Maulana are to be considered authors of the book, and joint authorship must be granted to both.

Similarly, when AI and a human work together and contribute something to the creation of a

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[30] Malabar Fisheries Co. v. CIT, Kerala, [1979] 120 ITR 49 (SC).

[31] Rajendra Kumar Sharma v. Brijendra Kumar Sharma, AIR 1992 All 288.

[32] Nav Sahitya Prakash and Ors. v. Anand Kumar and Ors., AIR 1981 All 200.

[33] Angnath Arts Pvt. Ltd. v. Century Communications Ltd., 2008 (4) Mh.L.J.

[34] The registration of the 'Suryast' painting: https://copyright.gov.in/WorkUpload/269639_A_Doc1_09_18_2020.pdf.

[35] Dr. Najma Heptulla v. Orient Longman Ltd. & Others, AIR 1989 Delhi 63.

work, then both of them should be given joint authorship over the same.

c. 11 Step Analysis Case:

In the case of Julia Kogan v Nicholas Martin & others,[36] the UK Court of Appeal stated 4 elements of joint authorship as per Section 10 (1) of the Copyright, Designs and Patents Act, 1988, namely contribution, collaboration, non-distinctness of contribution and collaboration. The Court of Appeal further gave an 11 step test on the basis of which joint authorship can be proved. The steps revolve around the contributions of the parties. The 11 step test has been mentioned herewith:

1. A work of joint authorship is regarded when two or more persons have collaborated to create the work.

2. There is no distinction in the contribution of each author.

3. It is acknowledged that contribution in the form of non-creative works will not be considered to be a work of joint authorship.

4. There is no distinction in the type of contribution the joint author makes.

5. There should be a substantial amount of contribution that should be contributed by the joint author.

6. What can be considered as a contribution to the work also depends on the nature of the work. (For example, literary, cinematographic, artistic and so on).

7. The Infopaq will decide what amount of contribution is sufficient. The concern is, therefore, whether the purported joint author has added components that expressed that person's own intellectual creation. If the putative author's contribution includes the Act of free and explicit decisions, it is able to qualify. On the other side, the fewer the options provided, the is unlikely they are to meet the test's requirements.

8. There is no necessity that the writers have intended to generate a work of joint authorship subjectively.

9. Suggestions and criticism would not be considered as a part of the substantial contribution of the joint author.

10. The 'Final Arbiter' test may have some relevance, but it is not the ultimate criteria to deny joint authorship.

11. It is not necessary that the contribution in a certain work must be equal in proportion, but they can showcase the relative amount of their contribution.

These 11 steps can be used in each case to derive whether AI should be granted co-authorship or not in that particular situation. Co-authorship does not mean that all authors must have contributed equally in order to be granted the title of co-author; even a significant contribution to the work would be considered a strong basis for the determination of joint authorship.

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[36] Julia Kogan v Nicholas Martin & others, [2017] EWHC 2927.

The doctrine of joint authorship permits the AI and the human programmer to be co-authors of the copyrightable work. This technique would not only accommodate people who argue that human writers are required, but it would also be a significant stepping stone in tackling the differences between artificial intelligence and copyright law.

(C) Why granting co-authorship is the desirable and rational approach as compared to granting sole authorship to AI or the User of the AI?

Sole authorship cannot be granted to the User of AI as there is a substantial contribution by the AI in the creation of copyrightable works. There should be some recognition given to AI for its contribution to creation. A person cannot be the author of every AI-generated work simply by setting up codes, especially when the work generated by AI was done with negligible human intervention. Sole authorship cannot be granted to AI or the User of AI because of several pressing issues. The issues can be explained as follows:

a. The legal standing of AI and Term of protection:

Details of a natural person as an author are required while filing for copyright registration in India.[37] Moreover, in several cases, the courts have held that there should be some human involvement in order to make work eligible for copyright protection.[38] Talking about the position of the United States of America, the United States Copyright Office has taken a stance to protect only the work, coming out of the intellect of humans.[39] The same has also been held in the landmark judgement of Naruto v. Slater,[40] wherein it was held that an animal has no standing under the Copyright regime.

Another issue involving is the 'term' of copyright as AI is considered to be a 'robot' and does not have a human-like existence. The term copyright is till the life of the author and 60 years after his life, and then the work falls in the public domain. Considering the nature of AI, it will be difficult to assign the term copyright to AI authored work. An AI is everlasting, does not get tired, and can create an infinite amount of work. As a result, copyright protection for AI-generated works is ambiguous and debatable.[41]

b. Incentivisation:

There exists a school of thought that proposes that the programmer or the developer of AI technology should be deemed as the owner or author of the copyright in any work created by the AI developed by him. This proposition seems flawed as the programmer is only involved in creating the AI technology and not the other

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[37] Practice and Procedural Manual 2018, Copyright Office https://copyright.gov.in/Documents/Public_Notice_inviting_reviews_and_comments_of_stakeholders_on_draft_guidelines/Literary_Work.pdf.

[38] Rupendra Kashyap v. Jiwan Publihsing House P Ltd, (1994) DLT 166; Institute of Chartered Accountants of India v. Shaunak H Satya and Ors, (2011) 8 SCC 781.

[39] Andres Guadamuz, Artificial Intelligence and Copyright, (2017) WIPO Magazine https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html.

[40] Naruto v. Slater, No. 15-CV-04324-WHO, 2016 WL 362231, at *4 (N.D. Cal. Jan. 28, 2016).

[41] Sik Cheng Peng, *Artificial Intelligence and Copyright: The Author's Conundrum*, WIPO-WTO Colloquium Papers, 181 (2018).

works which the AI later creates on command of its user. The programmer can, of course, seek intellectual property protection for his AI algorithms and codes, but granting him the copyright for all works made using his AI, is jumping the bar a bit too high and an "over-reward"[42]. Scholars also argue that granting copyright to AI companies and developers will lead to an inequality in access to AI and related technology.[43] Moreover, the programmer gets incentivised for his work (the AI) when the user compensates and contracts with him for using the AI.

The AI as such doesn't need incentivisation. It would be irrational to grant ownership of the work to the AI as it is not a natural person. It cannot exercise the rights that come along with the copyright. Granting sole ownership to AI for works will violate the entire objective of copyright law and will be a case of misplaced incentives.[44] AI being non-sentient in nature does not require incentives to create work; it only depends on electricity. As a result, the economic and moral benefits that are attached to copyright would be useless for AI technology as it cannot exercise these rights by itself. [45] However, the user of AI has absolutely no copyright incentive if it is not given the status of an author and owner. Hence, to protect the rights and interests of the users of AI, it is extremely important that the

User of AI be considered as the sole owner and the co-author of the work generated by AI.

c. Moral Rights:

Moral Rights are special rights of authors that reflect the personality of the author of a work.[46] Moral rights include the right to paternity and the right to integrity. It implies that the author has a right that his work be attributed to him and a right to claim damages in case his work is mutilated, distorted or modified in a manner that is "prejudicial to his honour and reputation."[47] In Amarnath Sehgal v. Union of India,[48] the Delhi High Court emphasised the relationship between the work and an author drawn by the personality of an author. There exists some kind of individuality and personality that reflects in work. An AI may satisfy the requirements of 'creative' and 'original genius', which were discussed in Amarnath Sehgal's case,[49] as it is fully capable of generating original works. This ability to produce creative, original works by its own computational processing does represent certain characteristics of personality and individuality, which may set a ground for granting moral rights to AI as an author of a work. However, granting moral rights to AI as a sole author would serve no objective because AI cannot exercise these moral rights as it is not a natural person or an agent with any legal personality.[50] Moreover, AI does not possess any

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[42] Samuelson, *supra* note 3, at 1207-1208.

[43] Peter Stone Et Al., '*Artificial Intelligence And Life In 2030: One Hundred Year Study On Artificial Intelligence*' STANFORD UNIV., 43 (2016).

[44] Samuelson, *supra* note 3, at 1199.

[45] Samuelson, *supra* note 3, at 1199.

[46] The Copyright Act, 1957, § 57, No. 14, Acts of Parliament, 1957 (India).

[47] The Copyright Act, 1957, § 57 (1) (a) & (b), No. 14,

Acts of Parliament, 1957 (India).

[48] Amarnath Sehgal v. Union of India (UOI) and Anr., 2005 (30) PTC 253 Del.

[49] *Id.*

[50] Martin Miernicki & Irene Ng (Huang Ying), *Artificial Intelligence and Moral Rights*, 36 AI & SOCI. 319, 322-323, (2021), https://link.springer.com/article/10.1007%2Fs00146-020-01027-6.

reputation and honour, at least in the current times, and hence there, under no circumstance can the right to integrity be exercised.

Moral rights are an indispensable aspect of copyright, and hence a policy has to be developed in the context of AI-generated copyrightable works. The most reasonable approach to this issue would be granting co-authorship to the AI and the user of AI. By granting co-authorship to the AI and the user of the AI, the user of AI can exercise the moral rights associated with the work in the capacity of a co-author.

d. Incapacity to contract:

Legal personality is a man-made notion that allows an entity to be the bearer of rights and responsibilities. Legal personhood confers the ability to engage in legal transactions on the topic. It gives the entity various powers and liabilities, including the ability to claim damages, the rights to possess property, the ability to engage in agreements, and the requirement to be liable to punishments, among others.[51] Legal persons exclusively can possess property and enter into agreements.[52] AI might enter into a contract when it is granted with legal personhood and a separate identity legally[53] , however, the condition that only a legal person can enter into an agreement exists under the Indian laws, and

therefore when AI enters into a contract, the contract would be considered to be invalid.[54] In the viewpoint of the laws, AI is not granted legal status. As a result, machines can't be seen as separate contracting parties but rather as the tools of the people who utilise the technology.[55] As a result, because artificial intelligence is not regarded as a person, even if AI generates a work that is copyrightable, the person who induces it to be created, instead of the AI, would be given the rights of the work. A formal contract is also required when the copyrightable work is to be commercialised through licensing. Thus, recognising AI as the sole author will restrict the economic exploitation of the work, thereby defeating the entire rationale of copyright protection.

e. Infringement issues:

Currently, there is no provision in the Copyright Act 1957 that deals with the liabilities of work created by using AI technology. If AI is recognised as the creator and owner of the material it produces, the question of who will be held accountable for any infringement committed by AI or its creation arises. Section 51 of the Copyright Act, 1957, which deals with the infringement, mentions the term 'person' and lists certain actions by 'persons' which would

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[51] Samriddhi Talwar, *The Potentiality of Separate Legal Entity for AI in India,*
TECH & IP LAW POLICY REVIEW (Dec. 2, 2021, 10:45 AM), https://www.tiplpr.com/post/the-potentiality-of-separate-legal-entity-for-ai-in-india.
[52] Nikhil Naren, *Legal personhood, liability and future of artificial intelligence: Thinking it through*, The Dail. Guar., (Aug. 12, 2020, 6:45 AM), https://thedailyguardian.com/legal-personhood-liability-and-future-of-artificial-intelligence-thinking-it-through/.
[53] Shubhank Suman, *Authorship of AI's Work: Conundrum of Copyright*, NUJS IPTLS (Dec. 6,

2021),
https://nujsiplaw.wordpress.com/2020/09/09/authorship-of-ais-work-conundrum-of-copyright/.
[54] Huzefa Tavawalla & Abhishek Senthilnathan, *Can artificial intelligence be given legal rights and duties?,* (18 June, 2018, 2:13 PM), https://www.business-standard.com/article/opinion/can-artificial-intelligence-be-given-legal-rights-and-duties 118061700626_1.html
[55] Emad Abdel Rahim Dahiyat, *Artificial Intelligence and Law: Do We Need a Thoughtful Reconsideration?*, 18 COLO. TECH. L.J. 351 (2020).

amount to copyright infringement. Analysing the aforementioned section, it is clear that the Act governs only actions of "persons" which are infringing on a third-party's copyright. To date, AI Intelligence has not been granted any legal status or classified as a legal entity, and thus any violation committed by AI will be a major issue. Therefore, a human author or owner needs to be established for every AI-generated work who will be responsible for any infringement related issues.

      f.   Other liabilities:

In case any obscene, defamatory or inappropriate material is published, or anything that impacts the morale of the society or harms the sentiments of any particular society is published, it is very difficult to affix the liability on the user of the AI or the AI itself because of difficulty in proving the 'mens rea' and legal personhood. Similarly, it will also be difficult to prove the malicious intention of the human author or the person using the AI to make the content as he/she will evade the liability by blaming the algorithm of AI. It will be difficult to hold the AI liable as it is not a person in the eyes of the law. One option will be to ban the software of AI, but with the pace at which the content flows in the internet world, it might be difficult to restore the loss that the aggrieved party might have suffered.

Therefore, if sole authorship is granted to AI, liability for any violation caused by AI will become far more difficult to assign. AI lacks a legal position of its own, and hence the problem of granting AI authorship rights may become a moot point until a sufficient route and chain can be established to generate liability for AI's

actions. Moreover, considering the pace at which the technology is advancing, it still requires human supervision. For example, if an AI causes an infringement, the aggrieved party can never claim compensation from the AI directly. When AI is considered as a co-author along with the user of such AI, all these problems can be addressed easily with the help of certain tweaks to the law.

III.   SUGGESTIONS

It is of utmost importance for the law to radically change according to the evolving circumstances. With the advent of technology like the internet and artificial intelligence, the creation and exchange of copyright works have become extremely easy. However, there seems to be a vacuum concerning the governance of copyrightable works created by AI. This loophole needs to be addressed at the earliest as the use of AI as an automated content creation tool only keeps increasing. The following steps should be taken in order to ensure the copyright regime in India is suitable for works generated by AI:

    a.   **Amendments to the Copyright Act, 1957:** The Copyright Act, 1957, needs to be evolved to accommodate AI works. AI should be included within the ambit of the Act as a joint author and a joint owner along with the user of the AI for works that are eligible for copyright protection. The definition of the author and joint author under Section 2 of the Act would require a change to ensure that AI-generated works are not excluded from its scope. Amendment in Section 13 of the Copyright Act, 1957 is also required to grant protection to original works

made using AI. An amendment is required in Section 51 so to clearly set out the liability in case a work created by the AI infringes the work or is similar to already published work. Act also requires to define the term 'computer-generated works' or 'AI-generated works' as well.

b. Diligent use of AI for content creation: The user of the AI should deploy the technology in a trial environment to assess the performance of the AI and to rectify any error which occurs at the early stages itself. The idea is to check the content created by the AI before actually releasing it to the public. The person using the AI should first review the content created by the AI and then only release it in the public domain. The user should also have effective redressal machinery which can immediately remove any infringing content that the AI makes immediately when required. Even when there is the best technology used for content creation, human intervention is still required to rectify any errors, such as foul language defamation.

c. Need for an AI policy for India: WIPO, in its draft issue paper on Intellectual Property and Artificial Intelligence,[56] has suggested a 'Sui generis' (different) system of protection for the original works created autonomously by the AI. Niti Aayog, in its discussion paper,[57] has suggested a robust and enforceable intellectual property regime through which an author can make profits and take credits for its work.

Moreover, the Parliamentary Committee, in its report, recommended a review of the existing Copyright and Patents Act to incorporate AI and AI-related creations[58]. Such policies need to be streamlined and implemented in India. Such an approach will not only increase the research, development and investment in the field of artificial technology but also will provide a sense of security to the user of the AI to protect its work.

d. Liabilities: In case of defamation, by libel, slander and cyber defamation, the concept of strict liability should be applied to shift the liability to the person using the AI; as discussed above, it is difficult to fix the liability on the AI directly. Ryland v. Fletcher[59] sets out the rule of strict liability according to which the person who knowingly performs an action which can cause damage and have adverse actions, then such person shall be held liable for any damage caused by such action. Therefore, the person using the AI should be held liable for any damage caused by the AI. Even when the issue of infringement arises, this approach will help in fixing liability and this way, the person using the AI will not avoid the liability by mentioning AI as the author. Daniel J.[60] emphasises that no copyright should be granted to any author who is not responsible for the meaning of its work, whether it is libel or copyright infringement.

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[56] WIPO, WIPO Secretariat, *Draft Issue Paper on Intellectual Property Rights and Artificial Intelligence*, (WIPO/IP/AI/2/GE/20/1, December 2019)

[57] National Institution for Transforming India, Government of India, *Responsible AI for all, Approach Document for India, Part-1 Principles of Responsible AI* (February 2021).

[58] Rajya Sabha, Parliamentary Standing Committee, *Review of the Intellectual Property Regime in India,*(Report no 161, July 2021).

[59] Ryland v. Fletcher, (1868) 19 LT 220.

[60] Daniel J. Gervais, The Machine as Author, 105 IOWA L. REV. 2053 (2020)

IV. CONCLUSION

India has already taken a step forward by Recognising AI as the co-author in RAGHAV. We would like to conclude by drawing attention to the need of the hour, i.e. to bridge the gap and answer the questions relating to authorship and liabilities which might arise while using AI for automated content creation. The vacuum that exists in the Copyright Act, 1957 with respect to authorship, ownership of the copyright in automated content, as well as other liabilities that may arise in cases of intellectual property infringement caused by the content generated by Artificial Intelligence should be filed in. There also exists a requirement for the introduction of new policies and regulations to resolve issues revolving around liability and accountability in cases of defamation, libel and other civil and criminal wrongs. Considering AI as the sole author of work created by using an algorithm cannot be a viable option as it will also deter the creativity of the human mind in future. It is also easy for developers to imitate the algorithm, and hence, the work created by some AI can easily be imitated or replicated, which is against the foundation of the Copyright act, i.e. originality and creativity. Giving more recognition to AI and protecting it would lead to greater technological advancements in the country as it would be an incentive in the field of Intellectual Property and Technology.

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