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THE COPYRIGHT CONUNDRUM IN THE WORKS CREATED BY ARTIFICIAL INTELLIGENCE

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ABSTRACT

Artificial intelligence refers to the ability of a computer or a device to perform tasks that require the intelligence, skill, and judgment of that of humans to do so. There has been a paradigm shift pertaining to Artificial Intelligence, from AI programs being capable of playing computer games of checkers to AI programs being capable of generating artistic and creative works without any human intervention, the development is remarkable. Along with the remarkable evolution, it brought about certain complexities and issues in the field of law, specifically copyright law. The copyright law aims to grant copyright protection against copyrightable work that flows from investment of creativity, skill, and judgment by the author. Artificial Intelligence opened a Pandora's Box on whether copyright can subsist in copyrightable works generated by AI, whether the status of authorship can vest with AI devices, and whether the existing copyright law is well equipped to handle works generated by AI. This article is aimed at addressing the aforementioned issues, especially in the Indian context, through extensive doctrinal research.

Keywords: Artificial-Intelligence, Copyrightable, Authorship, Originality, Copyright.

Introduction

The dominance of AI in the contemporary world is such that if it were to disappear into thin air one day, mankind would find itself devastatingly crippled. Apart from the most obvious replacements, AI has also made its way into those careers where human contribution would seem impossible to substitute. While it looks like Artificial Intelligence is on the track to obliterate human intervention; the things which it cannot do are those which come most naturally to humans. Morals, ethics, cultural dynamics, and social reasoning are just some of the things one can't feed into an algorithm. With Artificial Intelligence, the programmers ingest a string of data and algorithms into the computer, from which it learns to perform a specific function. Upon analysing it, the computer deploys the algorithm to perform the task and builds

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up from its results. In this process, it learns attributes and patterns from the data and can also learn to mimic a human brain to produce a desired result. In simpler terms, the algorithms used in AIs are simply a set of instructions that teach a computer how to learn and operate by itself. Programmers feed a set of rules into the computer, set the parameters till which it can run, and each time it is processed, the computer develops enhanced expertise by building up from what it has learned. It is indisputable that AI has helped enhance human precision and effortlessly manages tasks that would require huge manpower. It is also clear that behind AI there is an unconditional human contribution in the form of the people that lay down the framework for making these frontier technologies. Artificial Intelligence is being applied to work in diverse sectors, even those without arithmetic parameters. It can however, be said that a machine would not be able to match the aesthetic style or the symphonic sequence made by an artist who has channeled years of experience into his work. But an arts-collective company called Obvious in 2018, made 'a generative adversarial network portrait painting' titled - Edmond de Belamy, using AI. The company created the artwork on canvas using an algorithm that referenced over 15,000 paintings from various periods of art history. The artwork itself created a lot of commotion in the art world, and received mixed reactions. While it was purchased for a hefty amount, the copyright implications on it were just as big. Most recently, AI was also credited with restoring the edges of Dutch artist Rembrandt's painting. Statutorily, it is clear that computer programs and software are protected under Copyright Law, but who exactly would own the copyrights to works generated using Artificial Intelligence? This question has been around since the influx of mechanically generated works and poses a copyright issues to not only works of art, but also musical and literary works.

In most traditional works, copyright protection is automatically afforded to the artists/author/composer as soon as it is expressed in tangible form. So it is only fair that for works generated mechanically using artificial intelligence, the copyright protection would vest with the person who writes the algorithms which were used to generate the work. As simple as it seems, the process of creating an AI tool is not easily discernible. The programmers who write the algorithms only set the parameters within which it has to function, and once it is processed AI does most of its own work to generate the desired result. Thus, it can be assumed that most AIs are capable of functioning without human intervention especially when it comes to generating the work that is under question. If this argument is to be purported, then AIs could just as easily be granted the same status as human authors since it satisfies the two most important requirements for copyright protection i.e. originality and creativity. Once it is clear that copyright protection may be given to AI the next issue that would arise is ascertaining who

exactly would be given the rights to such work. Since computer algorithms are sets of instructions that are independently processed and such algorithms are often scattered among various programmers. Determining the contribution of each contributor in a quantifiable manner would thus prove difficult. Additionally, AI also depends on several other external and internal determinants to function. Works created by AI identify as being made with GAN, which is called generative adversarial networks. The process of creating unique images through GAN is called training and is done by putting two neural networks against each other. These neural networks are called the generator and the discriminator. The generator is fed with real data and learns to create fakes from it. Each time this function is processed, the generator generates believable data for the discriminator to check. The discriminator distinguishes the real data from the fake and gradually, the generator becomes better at creating passable fakes. This results in an authentic output, which is created by drawing references from real data that was fed into the system. The output is often unique, having subtle undertones of works from which they were referenced. The fusion in the work generated is so unclear that it becomes difficult to ascertain where exactly they have been referenced from. This might seem like a monumental step forward in the world of creative arts, but its copyright implications are far from being unraveled.

Artificial Intelligence & Art

In the curious case of Edmond de Belamy, the artwork was created by French developers and auctioned off in England. At the bottom, it was signed with a part of the algorithm code that was used to create it, to perhaps match the style of a conventional painting. The portrait was created using GAN- something that was developed by an independent researcher called Ian Goodfellow in 2014. In an interesting disclosure later, the French developers revealed that they had borrowed a majority of the code used in their process from a student called Robbie Barrat who posted them to the popular code-sharing website- GitHub. The case in question here, has three elements to it- the first being the artwork itself, the second is GAN and the third one is the algorithm used to train the GAN. Since each of these elements owes it origin to a different creator, the copyright implications on works generated combining all three would be almost too difficult to ascertain. In another instance, Artificial Intelligence helped restore the missing edges of Rembrandt's painting called The Night Watch. The edges of the original painting had been trimmed to fit in the city halls and have since been restored by using AI tools. The machine was trained to learn the Baroque-style of Rembrandt's work and also referenced an original copy of the full painting made by Gerrit Ludens. The digital restoration resulted in not only an

off-center perspective which was originally intended by Rembrandt, but also attracted high praise from art critics coming close to what it could have been if it were never cut-off. The underlying principle in most of these AI tools used for generating artwork is that they can be programmed to pick up and build upon on what already exists. It may be trained to mimic the style of a certain painter, to emphasize certain brush stroke techniques, embody certain patterns and shapes or to encapsulate all in the same work. This ensured that there remained a touch of human intervention and control over the machine. The question of copyright protection that can be afforded to all such current and future works created using AI, thus becomes a pertinent one. In all of the above instances, the works continue to exist in the public domain, be it owing to the expiry of copyright protection or the total lack of it. The answer to the question will determine the fate of the role of Artificial Intelligence in Art. As of 2022, there are very few jurisdictions in the world which have evolved the definition of an 'author' under copyright law to include non-human actors. If the laws continue to remain as rigid as they are, it can be said that works created using AI will remain in the public domain since it will be too difficult to credit each contributor. It may seem like the distribution of credits is the biggest obstacle in the path of granting copyright protection to AI but that too, has been nearly eliminated by AICAN. AI Creative Adversarial Networks, is an algorithm created by Dr. Ahmed Elgammal comes close to resolving the issue. AICAN is designed as an autonomous artist that has learned existing styles and aesthetics and can generate innovative images of its own.[3] This has been made possible by feeding the machine with 80,000 images ranging from various epochs of art without confining the program to conform to any specific style. On top of this, AICAN has its own team of coders which work on the code for the algorithm but have no actual control over the kind of work that will be generated. This means that the result can be termed as a tasteful concoction of various art forms, without the application of human creativity or intervention. The works produced by AICAN are said to be credited with the same name, as the creator insists that even though he set the framework, the algorithm is fully at the helm when it comes to the elements and the principles of the art it generates.[4] It is clear that any work produced by AI, whether literary, musical, or artistic, isn't devoid of its own input. There is definitely creativity exercised in producing the result, which would become capable of copyright protection but it is questionable whether the autonomy of AI can at all, be considered creative. The Feist Publications case not only affirmed that there is creativity in rearrangement, but also

[3] Ahmed Elgammal, *Meet AICAN, a machine that operates as an autonomous artist The Conversation* (2018), https://theconversation.com/meet-aican-a-machine-that-operates-as-an-autonomous-artist-104381 (last visited Mar 10, 2022).
[4] Id.

set the parameters for what was to be considered creative. Courts in the United States have since heavily relied upon these parameters in different cases. While discussing creativity, it was held that purely random, arbitrary or insignificant selection is insufficient to be afforded copyright protection.[5] The working of neural networks in AI is similar, the programmers might set the parameters within which it is to function but the extraction and creation process, even though independent is completely random. The conundrum is that in the same Feist Publications case, the Court also held that creative choices visible in selection and arrangement were necessary to generate sufficient originality to warrant copyright protection.[6] The working of an AI Tool designed especially for creating art, the creativity in the result is ensured by the incidental extraction and arrangement. In Bleistein v. Donaldson Lithographing Co., it was held that the measure of copyright was not the end use or aesthetic value of the work, but rather the introduction of a unique element by the author.[7] It is clear that every new element introduced by AI into the resultant artwork would be deemed as an expression of its own artificial personality. With the ingress of this element of its own personality, even though artificial, works produced by AI becomes unique. With both creativity and uniqueness garnered through random extraction, granting copyright protection to AI would only be logical as it seems to satisfy the most basic requirement for copyright protection.

Artificial Intelligence & Music

With the art world seemingly conquered, Artificial Intelligence was also used to venture into music. AI generated music seemed too farfetched, for it was claimed that it would never be able to live up to the legacy of great composers and musicians. But Artificial Intelligence can be trained to mimic the discography of not only one, but hundreds of musicians. What separates AI from machines which are designed to perform a limited set of actions strictly under human control is the ability of the AI to apply existing knowledge to a new set of facts or problems.[8] Google Magenta's NSynth Super, Amper Music, IBM's Watson Beat, Spotify's Creator Technology Research Lab and OpenAI's- Jukedeck, all use deep learning networks to create music through AI.[9] The problem with these seemingly easy-to-make-music software are the

[5] Daniel Geravis, *The Machine as Author*, Iowa Law Review (2020), https://ilr.law.uiowa.edu/print/volume-105-issue-5/the-machine-as-author/ (last visited Mar 20, 2022).
[6] Feist Publications v. Rural Telephone Service Co., 499 U.S. at 348.
[7] Bleistein, v. Donaldson Lithographing Co 188 U.S. 239 (1903).
[8] Bob Ryan, *Al's Identity Crisis*, BYTE, 239, 240 (1991).
[9] Dani Deahl, *How AI- Generated Music Is Changing the Way Hits Are Made*, THE VERGE (March 15, 2022), https://www.theverge.com/2018/8/31/17777008/artificial-intelligence-taryn-southern-amper-music.

layers of copyright involved. In case of original programme created to make music, it is clear that copyright for the source code rests with the programmers but there is still ambiguity regarding the extent of protection to music created by using these programs. The more capable the software is in exercising its autonomy, the more ambiguous the origins or authorship of copyrightable works produced using it.[10] Behind these applications, are human actors which contribute to the technical aspect of making music using AI, which is done through writing the code for the programs, training the neural networks, and feeding the system with sample music. Then comes the ability of AI tools to mimic- which has consistently been one of its pertinent features. In order to be able to produce a musical composition, the machine is fed with a number of existing musical works, which is called as-source material. The source material used may not always be free of copyright, which means that in the final result, for an artist to be able to determine whether or not a part of his work has been used for AI generated music will be extremely difficult. If the argument of granting copyright protection to AI generated music is relied upon, the task of determining and crediting each contributor will also pose difficulty. For most AI tools using a number of musical works as references to create a unique tune, recognizing and abstracting the contribution of each musician is nearly impossible. This would bring up a similar situation, which is determining all the different elements involved in producing the work. The final result is the combined effort of programmers, composers, and in some cases, AI's own ability. Granting copyright protection to such musical works may thus provoke the need for a separate category under copyright law for AI and to ensure equitable distribution among all. Granting copyright protection to even one would still not suffice the ambiguity, as all these elements are mutually dependent on each other. The next question is if the music made by using this software is ever fully copyright-free? And if so, who would own the copyrights to the final product? The possible answers to this question are the user, the programmer, the computer, or a combination of one or more of these entitito exercise Monkey Selfie case proved that copyright ownership cannot be given to animals, essentially not to anyone who would be unable exercise the rights bestowed by virtue of copyright protection. Assigning copyright to Artificial Intelligence or machines would have similar ramifications. Machines and even humans, acting under the direction of another, such that they are acting as an amanuensis, do not have a claim in the copyright of the work. As a general test of infringement under copyright law, it is important to show what has been taken from an existingwork, and not what has been added to it. Which means that even if an artist's

[10] Ralph D. Clifford, *Intellectual Property in the Era of the Creative Computer Program: Will the True Creator Please Stand Up?* 1697, Tulane Law Review (1997).

music was used as source material for a subsequent work produced by AI, it would be impossible to identify as the whole process would have to be reverse engineered. This would make it extremely difficult for an artist to even know or identify if at all, his work has been sampled from. In Alfred Bell & Co. v. Catalda Fine Arts, Inc. the Court while discussing engravings, found originality in "distinguishable variations" from the original public domain works.[11] The same can be said about music produced by AI, as anything with substantial similarity could be considered as an infringement whereas distinguishable variations combined with random extraction and rearrangement would make the work qualify the threshold for creativity. As observed in the Google Book case, it can be suggested that the use of "copyrighted works for the non- expressive purpose of training AI models amounts to fair use". It is noteworthy that Japan has amended its copyright laws and included "exemptions of the use of copyrighted works for machine learning".[12] What must also be considered is whether the AI tool in use is actively learning or its work is limited to assimilation. Google's recent research project NSynth Super, has made it possible to generate not only new notes in music, but sounds of an instrument- the NSynth algorithm learns the core qualities of what makes up an individual sound and then is able to combine sounds to create something completely new.[13] This would not only render the possibility of a copyright infringement in sampling music invalid but the result could also be deemed eligible for copyright protection. However, where computers act as independent *actors,* generating Computer-Generated Works algorithmically, sequentially, or non- deterministically, there is an apparent gap between the human's input and the computer's output.[14] Since active learning AI is autonomously functioning, the resultant work would definitely have an imprint of its own artificial personality, which makes a compelling case for AI to be granted copyright protection. In a way forward for AI, the UK Copyright, Designs and Patents Act, 1988 deals with computer-generated work, and the reason for such a provision is "to create an exception to the requirement of human authorship in order to provide due recognition and protection for the work that goes into creating a program capable of independently generating works".[15]

[11] Andrien v. Southern Ocean County Chamber of Commerce, 927 F.2d 132, 135 (3d Cir. 1991).
[12] Alfred Bell & Co. v. Catalda Fine Arts 191 F.2d 99 (2d Cir. 1951).
[13] Karen Robinson, "Copyrights in the Era of AI", Adobe Blog, February 27, 2020, available at: https://blog.adobe.com/en/publish/2020/02/27/copyrights-in-the-era-of-ai.html#gs.opdukw (last visited on April 15, 2022).
[14] Dani Deahl, *Google's NSynth Super is an AI-backed touchscreen synth*, The Verge (2018), https://www.theverge.com/circuitbreaker/2018/3/13/17114760/google-nsynth-super-ai-touchscreen-synth (last visited Apr 15, 2022).
[15] Nina Fitzgerald and Eoin Martyn, "An In-depth Analysis of Copyright and the Challenges presented by Artificial Intelligence", Ashurst, March 11, 2020, https://www.ashurst.com/en/news-andinsights/insights/a

Copyright in I.P.

When a work is created, with it the avenue of the author and author's ownership comes into play; generally, the creator of the work is the author and owner until the author delineates it right to some other person or it creates under the banner of work for hire.[16]

"*It's often presumed that the work emanates from pre-existing works, ideas, and already existing work; thus, it won't be wrong to say that the codes which the programmer input into the computer is just a source, an idea from where the computer independently without human interaction creates a work[output].*"

The Authorship to Programmer or A.I.

If we go by the traditional way of assigning copyright to humans, the programmer will certainly qualify for the author's tag as he has input the programs. In the Case of *Kelly v Chicago Park*, it gives a glim of hope in assisting authorship status to AI, when the seventh circuit stated that in AI-generated work (programmer) has limited control over the outcome and thus assessing copyright protection was dubious. Further, they have emphasized that just because the output is not in the programmer's control does not destroy their claim to be the sole author. The learner who is inclined towards human, who is the programmer to be sole author emphasized on certain theories as they claim that it's the programmer's creativity, skill, hard work which result in AI related work outcome.[17]

The labour theory come to protect this claim as according to it the programmer is entitled to bear the fruit of their labour of making program with source from all AI output. The utilitarian theory envisages that the scope of further improvement or creativity is possible only when the programmer is duly awarded authorship, which is the traditional theory of giving people theserights. The UK for instance is one of those jurisdictions which follows this tradition. A personis the author of his creation, and thus paternity right lies with it; a person/programmer who is being given authorship over the work which he does not own and did not create in a way as was unaware of the outcome cannot snatch what AI has created.

Shlomit Yanisky Rawid,[18] who forwards a seed of thought that when a programmer is given

indepth-analysis-of-copyright-and-the-challenges-presented-by-artificial-intelligence/ (last visited on April 15, 2022).

[16] Lior Zemer, *The Idea of Authorship in Copyright* (Ashgate Publishing 2007). See also Lior Zemer, "*The Copyright Moment*" (2006) 42 San Diego L Rev 247 [Zemer, *The Copyright Moment*]

[17] John Pavlus, *Stop Pretending You Really Know What AI is and read this Instead,* Quartz., https://qz.com/1067123/stop-pretending-you-really-know-what-ai-is-and-read-this-instead/ (last visited on April 2, 2022)

[18] Shlomit Yanisky-Ravid and Xiaoqiong (Jackie) Liu, "*When Artificial Intelligence Systems Produce*

the author's status, which he/she himself does not own, it is not justified. Similarly, Emily Dorothew states that just because the programmer was the creator of codes does not automatically qualify the programmer to be the author of the work he had not created nor apprehended. When a person is kept in an isolated room, and in parallel, one outcome is given by a human and another by AI, and the person could not recognize which one is an AI-generated work and which one is human-generated work, then AI should be provided with the authorship tag as was stated in the Turning Test.[19]

When we strictly dive into the definition of "*author*" envisaged under Section 2(d) of the Copyright Act 1957.[20] Here "*person"* strictly does not mean to be a human person, and the definition is flexible enough to cover a natural or juristic person.[21] Additionally Article 1 of the Berne Convention talks about an author without defining it and thus leaves the interpretation open to include an Artificial Intelligence Program A company registered under the Companies Act, 2013 in India holds the same status in another jurisdiction. In that case, that is not a natural person per se (not a human), but rights and duties are still envisaged on the company. It is treated as a person who is represented, and a human regulates work; the same principle can be cast on AI, where AI is given the status of a person and authorship right given to AI.[22]

Further Kerr and Craig[23] argue that AI should not be given the authorship status as it does not communicate or a standard provided by them is that it requires participation in social relations, but AI does not hold this merit as it can't communicate. This contention somewhat doesn't hold true as it is because of "*user interest that AI give the outcome*" moreover, to qualify for the status of authorship or copyright, it does need to seemingly need to penetrate into social communication, as in the copyright regime we have the concept of pseudonymous and anonymous work.

A middle ground can come to the rescue and give a way of joint authorship status both to AI and Programmer, and it brings forth the argument about who should be an author? Joint authorship means work created by the collaboration of two or more authors in which the

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Inventions: An Alternative Model for Patent Law at the 3A Era" (2017) 39 Cardozo L Rev 2215, 2224–28.

[19] Brian Merchant, "*The Poem That Passed the Turing Test: They Should Have Sent a Computer*" Motherboard, February 2015 (last visited on April 3, 2022)

[20] "author" means, -

(vi) *in relation to any literary, dramatic, musical or artistic work which is computer generated, the person who cuase the work to be created;] 6dd[(dd) "broadcast" means communication to the public – 3[(dd) "broadcast" means communication to the public –* "

[21] HLA Hart, The Concept of Law, (3rd Edition, OUP 2012)

[22] Jerry Kaplan, Artificial Intelligence: What Everyone Needs to Know (OUP 2016)

[23] Carys Craig and Ian Kerr, "*The Death of the AI Author*" (2019) Osgoode Legal Studies Research Paper, http://dx.doi.org/10.2139/ssrn.3374951/ (last visited on April 3, 2022)

contribution of one author is not distinct from the other.[24] When there is no clear answer to the question, which puts forward a complex situation of who may be regarded as the author of the AI-generated work and on the face of it can be seen that there is the contribution of both the actors involved thus it can be concluded that the work is combined effort of both the actors (AI and Programmer)[25]

However, when AI comes into the picture is still unclear. It becomes difficult to fit it into the traditional law of different jurisdictions like the US,[26] UK, Canada did not open gates to welcome AI in joint authorship as these jurisdictions define joint authorship.[27] This element of intent in their definition lag behind in the case of AI-created work. These requirements are jurisdiction-specific, not global thus, to qualify for joint authorship intent is unnecessary for many jurisdictions. Thus, this clears the fog and makes way for joint authorship for AI.

Public Domain

When dissected through the work of AI it is argued that the outcome of AI work, could not come under the realm of copyright law. As argued by Ralph Clifford, that AI does not constitute a human element thus is unable to claim copyright, its human who can only claim thus this outweigh the whole concept of authorship or giving copyright to AI and ultimately putting the work in the public domain. Rallif Cliford's contention is accompanied by Canadian and American Copyright laws,[28] but when we talk about the work which should qualify for copyright it has to map on the scale of originality and AI very well qualify on this criterion. AI qualifies on the scale of originality used by many jurisdictions like UK, US,[29] India itself.

The '*doctrine of sweat of the brow'* talks about minimum time and effort, if a work has then it qualifies for copyright, A.I. work is created by its own permutation and a combination of programs gives a different outcome and hence it's AI's own effort. Secondly, '*the modicum of creativity doctrine'* tells about the minimum amount of creativity should be in the work in order to qualify for copyright protection and this can be cast upon the AI created work, as the outcomes are very different and the outcome is the creativity/work of AI itself without the

[24] Lionel Bently and Brad Sherman, *Intellectual Property Law* (4th Edition, OUP 2014)

[25] Alan R Durham, "*The Random Muse: Authorship and Indeterminacy*" (2002) 44 Wm & Mary L Rev 569, 571

[26] US s. 2217, *A bill to require the Secretary of Commerce to establish the Federal Advisory Committee on the Development and Implementation of Artificial Intelligence, and for other purposes*, 115th Congress (2017–2018)

[27] *Section 2(z)*, Copyright Act, 1957

[28] Oren Bracha, "*Owning Ideas: The Intellectual Origins of American Intellectual Property*", 1790–1909 (CUP 2016) 32

[29] Jacobellis v Ohio [378 US 184], 197 (1964)

intervention of human [programmer] and thus qualify for AI protection.

Work for Hire

An employer – employee concept comes into the picture when we talk about the work for hire concept, generally, the creator of the author is the owner of the work but work for hire falls into the exception of this preconceived notion. The person who pays the person to do the work for him or for his organization is generally considered an employer who employs a person to do work within the instructions and directions provided by the employer and the employee needs to remain within this boundary and do the work and work created by the employer though he is the author but ownership shift to the employee.[30]

Many scholars have drawn a parallel line between work for hire in the traditional way and that of the AI world, where the programmer is conceived to be the employer who hires AI to do the work under the context of work for hire. The programmer in this case gives the command, basic instructions through the codes, and the AI in return provides the outcome by infusing its own creativity and effort. Hristov[31] echoes with Bridy[32] and do confer with this where they want AI to come under the realm of employee definition. The UK has a similar law where if a computer generates a work without human intervention providing ownership right to the programmer [employer].[33]

As advocated by Wu[34] and Timothy Butler,[35] the author-in-law model where an author is a fictitious person and suggests that when the court finds that the said work is produced by AI/ Computer who is the author then the court should assign the copyright to the person who controls the AI, that is the programmer who should be regarded as the owner. This however promising looks and on the face of it shows that the conflict of assigning rights to either of them is solved but as Joanna Bryson[36] also rightly puts it, AI to be treated as employees; slaves who can be directed, exploited, and not given AI due right would be detrimental for the social welfare as with time these machines will develop and anthropomorphize and treating AI as salves and not giving them due rights would impact the human behavior and inflict wrong

[30] Kwall, "*The Soul of Creativity*", Bently and Sherman, 273–74, 279 and 289
[31] Kalin Hristov, "*Artificial Intelligence and the Copyright Dilemma*" (2017) 57 IDEA 431, 444
[32] Annemarie Bridy, "*Coding Creativity: Copyright and Artificially Intelligent Author*" (2012) 5 Stan Tech LRev 1
[33] Justine Pila and Andrew Christie, "*The Literary Work Within Copyright Law: An Analysis of its Present andFuture Status*" (1999) 13 IPJ 133, 156
[34] Andrew J Wu, "*From Video Games to Artificial Intelligence: Assigning Copyright Ownership to Works Generated by Increasingly Sophisticated Computer Programs*" (1997) 25 AIPLA QJ 131, 134
[35] Timothy L Butler, "*Can a Computer be an Author? Copyright Aspects of Artificial Intelligence*" (1982) 4Comm & Ent LJ 707, 746
[36] Joanna J Bryson, "*Robots Should Be Slaves*" in Yorick Wilks (ed.), Close Engagements with Artificial Companions: Key social, Psychological, Ethical and Design Issue (John Benjamin's Publishing 2010) 63–74

tendencies into a human being as it also brings our attention to Karl Marx's theory where a person in power exploits the labour class people by churning out all the work yet not giving due consideration in any kind.[37]

Does moral right persist?

When we talk about any work it is regarded as the mirror image of the person and it does qualify to get moral rights and no one by any means can devoid the author of their moral right. The right of *paternity* and *integrity* cannot be snatched from the author and thus AI which generates work without the intervention of the human qualifies to be the author of the work. Hence moral rights get attached to the work, and though the ownership can be caped on the programmer but to give credit to AI remain immortal and the programmer need to give authorship status to the AI.

Conclusion

Since the Industrial Revolution corporate entities have continually received the legal status of an artificial person and it has carried with itself certain other ancillary rights. This essentially shows that change is the only constant and therefore we cannot hold onto the old conventional ways of thinking and obstruct creativity.

Artificial Intelligence and its scope need to be expanded and there is a necessity to dive into it and understand how artificial intelligence is making progress in leaps and bounds in works of art, music, games, etc., to get the status of an author/joint author or any status to properly acknowledge its contribution. The *Shibuya Mirai* artificial intelligence is a pioneer example where it received a residency in Tokyo, Japan. In fact a novel written by *Shibuya Mirai* has been recognized as one of the best literary works in Japan. This essentially clears any kind of doubt regarding the capability of an artificial intelligence program and lays down a foundation where AI should be given a status in Copyright Law.

If we look back, there have been several instances where non-human actors have gotten copyright protection for their work, for instance, *Naruto* the monkey, and very absurdly a ghost have allegedly been granted copyright protection, which very pertinently births the question that why not artificial intelligence then? The primary objective of copyright has always been to multiply creativity as is already visible & undoubtedly, AI's entrance into the copyright

[37] Aviv Gaon, "*Intellectual Property at a Crossroad: Awarding IP Protection for Algorithms*" in Woodrow Barfield (ed.), The Cambridge Handbook of the Law of Algorithms (CUP 2020)

world has expanded the horizon and paved out new areas of development in the field of Intellectual Property Especially Copyright. So, what's the point of not granting AI the status of copyright protection?

It is said that a work of an author is the mirror image of his/her personality. The concept of moral rights is very well accepted in the current Indian copyright regime where an author cannot be stripped of their *right to paternity and right to integrity* even by way of an agreement. In the current situation, the work which an artificial intelligence creates by its own permutation and combination can be awarded moral rights, or at least the right to paternity is granted along with recognition. Armoring artificial intelligence with moral rights will be important the first step in its acceptance & growth until a major overhaul or statutory amendment is effected that would give space to all forms of artificial intelligence so that it can breathe freely and mushroom under a copyright regime.

Therefore, where non-human actors have been accorded with copyright protection, serving no such protection to the AI programs is indeed unethical & should subsequently be thought upon.

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