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**AI-GENERATED WORK AND COPYRIGHT INFRINGEMENT:
LEGAL FRAMEWORK IN INDIA AND FOREIGN JURISDICTIONS**

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INTRODUCTION

The expansion of AI-generated content in today's legal sphere raises numerous intricate challenges. Among these are the complexities surrounding intellectual property rights, the accountability nuances for errors, the prevalence of false information due to authenticity concerns, and the risks associated with data privacy, and the ethical considerations that arise. Debates on authorship and copyright ownership, determining responsibility for AI-generated mistakes, combating misinformation, protecting data privacy, and addressing ethical quandaries are integral to crafting a legal framework that harmonizes technological advancement with accountability and ethical standards. Collaboration across disciplines is vital in formulating regulations that safeguard individual rights and societal welfare within the evolving domain of AI-generated content.

The evolution of India's Copyright Act began during colonial rule with the 1847 law. Subsequent developments saw the 1911 Copyright Act, later revised in 1914 for India, replaced by the 1957 Copyright Act—the first post-independence legislation—subject to six subsequent amendments. The latest in 2012, the Copyright (Amendment) Act 2012, further refined the law. Shaped by social, economic, and cultural contexts, it aims to balance authors' rights, copyright holders, and public access to materials. Key areas include assessing originality, addressing copyright violations, and fair use provisions.

AI-generated content has emerged as a significant issue in the legal landscape, especially concerning Intellectual Property Rights (IPR) in India and globally. The debate revolves around the attribution of creatorship for content produced by artificial intelligence, raising questions about ownership, copyright protection, and liability. Various jurisdictions are grappling with the challenges posed by AI-generated works and the need to adapt existing legal frameworks to address these complexities. As technology continues to advance,

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navigating the intersection of AI and IPR remains a pressing concern for policymakers, legal experts, and content creators worldwide.

Cases Related to AI-Generated Work and Copyright Infringement

The cases related to copyright infringement by AI-generated work have started knocking on the doors of courts worldwide. With many art-generating and literature-generating AIs being sued, experts say this is just the beginning of this kind of lawsuit.[i]

The Next Rembrandt project

One of the most recent examples of how AI can infringe copyright is the “[Next Rembrandt](#)” project, where a group of artists, engineers, and scientists used machine learning algorithms to create a new painting in the style of Rembrandt, a famous European painter. The painting was exhibited and sold, and the question arose about who owned the copyright. So, this shows how paintings of one the greatest painters, which took him years to make, can be easily created by AI in a few minutes, and thus, the question arises about its regulation. Here’s a look at more prominent cases worldwide that have taken lawmakers' attention to create laws on this aspect.[ii]

Case of paintings generated by AI

While the EU copyright laws were not specific to AI-generated works before a recently passed Act, the courts had to deal with cases involving such works through the basic principle of natural justice and the reasoning of judges. One of the notable cases is the “[Paintings Generated by Artificial Intelligence](#)” case, which was decided by the High Court of England and Wales in 2018. In this case, a group of artists used an AI algorithm to create paintings, which were then exhibited and sold. The court held that the copyright in the paintings belonged to the artists who created the AI algorithm, as they were the ones who exercised control over the creative process.

DABUS v. USPTO

In one [landmark case](#), the Southern District of New York considered whether an AI system could be viewed as a joint author of a work under U.S. law. In this case, an AI system Device

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for the Autonomous Bootstrapping of Unified Sentience (“DABUS”) had been used to create two inventions, and the inventor Stephen Thaler filed patent applications listing DABUS as the sole inventor. The United States Patent and Trade Office (“USPTO”) rejected the applications, stating that only a natural person can be listed as an inventor under U.S. law. Similarly, his application for a patent in various jurisdictions, such as Australia, the United Kingdom, New Zealand and the European Patent Office, was rejected on the grounds that their patent laws do not allow the grant of a patent to an AI system as the inventor. The court upheld the USPTO’s decision, finding that the language of U.S. patent laws only allows natural persons to be inventors.

Like DABUS, an application was filed to the copyright office in India, which listed an AI system ‘[RAGHAV](#)’ as the sole author of an artistic work. Though the office rejected it, it mistakenly registered it when Ankit Sahni, the creator of the AI system RAGHAV listed a natural person (Sahni himself) and AI (RAGHAV) as co-authors.[\[iii\]](#)

Cases in China

The courts in China have been proactive in interpreting and applying [copyright law](#) to AI-generated outputs. Notably, the cases of Feilin v. Baidu and Tencent Shenzhen v. Shanghai Yingxin have provided valuable insights into copyright protection for such works. The courts have established criteria for granting copyright protection to AI-generated works, such as an objective approach to determining originality and considering the degree of human involvement in the creative process.[\[iv\]](#)

Overall, Chinese courts have recognised the copyrightability of AI-generated works when they involve human intellectual activities and have considered the user of the AI software as the copyright owner. The proactive role of the courts, the consideration of originality and human intervention, and the emphasis on agreements contribute to developing a legal framework that aims to address the challenges and opportunities presented by AI technology. However, there must be clear guidance on copyright ownership for autonomously generated AI products without significant human intervention.

These cases demonstrate the need for clarity on the ownership and protection of AI-generated works under existing copyright laws and design legal frameworks to address the challenges and implications of AI in the realm of creative expression. As AI technology advances,

society must navigate the legal and ethical dimensions of AI-generated works to ensure fair and appropriate protection for creators and their creations.

Navigating Challenges Presented by AI in India's Copyright Law

Instances of copyright infringement by AI are rare in India now, but looking at the trends. As all the world's major countries have started forming precise laws in this regard, it becomes really important for Indian lawmakers to have explicit provisions in the law for dealing with authorship, originality and liability of AI-generated work.

Section 2(d) of the Copyright Act, 1957, which defines the 'author' of copyright content, currently does not explicitly include AI as an author. But it should be noted that Section 2(d)(vi) of the Act says, "about any literary, dramatic, musical or artistic work which is computer-generated, the person who causes the work to be created," which means an author also includes a person who created work with the assistance of a computer. For this purpose, it needs to be clarified whether AI is under the definition of a computer under this Act. Moreover, a prompt which is used as an instruction to generate work from AI can also be considered a 'computer program' if we go by the bare wording of Section 2(ffc) of the Act, which defines it as "a set of instructions expressed in words, codes, schemes or in any other form, including a machine-readable medium, capable of causing a computer to perform a particular task or achieve a particular result;" so, this provision can be misused in the future by including AI-generated work under the definition of computer programme.[v]

One of the other main contentions that lie in the copyright of AI-created work is its originality. Section 13(a) of the Act mentions the word 'original' and, thus, makes it mandatory for the work to be original to get the copyright; however, what consists of "originality" is nowhere defined under the Act. So, doctrines of originality have been established by various precedents in many countries, and India has adopted them at different times. Many doctrines are prevalent for testing the product's originality to be copyrightable. Still, the authors of this article analyse the three most prevalent doctrines and apply them to figure out whether the work created by AI can be considered original.

Sweat of the Brow: For a long time, India has been following the common law doctrine of "[sweat of the brow](#)," which means that the work created should involve the skill and labour of the author for it to be deemed original. It did not lay much emphasis on the

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actual originality and creativity of the product. The work generated by AI cannot be said to be produced with the skill and labour of the prompt giver as skill is not used in the actual production of the work, and if only giving a prompt would be considered labour, then the threshold will go too low. However, if AI was considered the author by the law, then it can be said that the skill and labour of the author (AI) were used in the creation of the work. Thus, the application of this doctrine depends on whether future laws consider AI to be an author.[vi]

·Doctrines of Modicum Creativity: In the case of Eastern Book Company v. D.B Modak, the Supreme Court of India shifted to the U.S. established doctrine of “[modicum of creativity](#)”, which states that a minimum level of creativity should be there for the work to get copyright protection. This doctrine does not demand that the level of creativity be too high; for instance, in the case mentioned, even headnotes, cross-references, and other additions were considered original creations of the appellant. So, if we go by this doctrine, the work created by AI can be considered creative and, thus, original.[vii]

·Skill and Judgment Test: In 2004, the Canadian Supreme Court found a middle path between the above two approaches using the [Skill and Judgement Test](#), which the Indian Supreme Court later followed. According to this new approach, the work should not be novel but should not be a mere result of mechanical exercise. Thus, the author must exercise his skill, labour and judgment to consider the work original. Going by this doctrine, to determine the originality of the AI-generated work, the level of human guidance involved in creating that work would be one of the critical factors. As this doctrine also talks about mechanical exercise, what remains to be tested is the ratio of mechanical exercise and human guidance.

Other than originality and authorship of the AI-generated work, the issue also lies in determining the ownership of the work thus authored. If AI is considered an author by the law, who will be the product's owner, the AI itself, the AI developer, or the prompt giver? This question needs to be addressed, and as per the current law, the Act can be potentially used/misused to have the prompt giver as owner of the work produced by AI. For instance, Section 17 of the Copyright Act, which defines the ‘first owner’ of the copyright, says that in case of a painting drawn for valuable consideration at the instance of any person, such person should be the first owner of the work created. Taking this into the current scenario, the work produced by AI platforms which charge subscription fees can be considered for work

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produced by AI at the instance of the prompt giver, who will then be regarded as the first owner of the copyright as per this provision.

When all the issues mentioned earlier are solved, the question of liability arises. Who will be liable for copyright infringement by AI? As this is a [general rule](#)^[viii] that only a natural person or artificial person can be sued in law, and AI doesn't categorise as either a juristic or a natural person, the question lies in whether it will be declared a legal person in the future and if not who else will be held liable for its actions? So, it is up to the lawmakers to grant [legal identity](#) to AI while considering all the possible consequences that may arise.^[ix]

Development of Copyright Law Related to AI in Other Countries

The existing laws and approaches to the copyright of AI-generated work in the EU, US, and China have similarities in their recognition of AI-generated works as copyrightable and the exclusive right of copyright owners to reproduce, distribute, publicly display, and perform such works. All three also allow for exceptions to copyright protection, such as fair use or public interest purposes ([17 U.S. Code § 107](#); Directive 2019/790)^[x]

Law in the EU

On March 13, 2024, the European Parliament formally adopted the EU [Artificial Intelligence Act](#) ("AI Act"). The AI Act is the world's first horizontal and standalone law governing AI and a landmark piece of legislation for the EU.^[xi]

The European Parliament has adopted this Artificial Intelligence Act to create a regulatory framework for AI. This is a significant legislative initiative to regulate AI technology within the EU. It will not only pave the way for better regulation but also remove the ambiguity in the existing copyright laws. The EU seeks to balance fostering innovation and ensuring ethical and responsible AI development through this.

However, it is not the finish line. Over the next few months and years, the AI Act will be specified and supplemented further by secondary EU legislation – implementing and delegated acts to be adopted by the EU Commission. The EU is also finalising amendments to the EU Product Liability Directive to align with the EU AI Act. It has proposed a new [EU](#)

[AI Liability Directive](#), which will facilitate redressing consumer claims for harm caused by AI.

Recent Initiatives by U.S.

A year ago, [the U.S. Copyright Office](#) launched a comprehensive initiative to examine the impact of generative Artificial Intelligence (AI) on copyright law and policy. Over the coming months, the Office will issue a report, published in several sections, analysing the impact of AI on copyright and making recommendations about any legislative or regulatory action. The first two sections will focus on digital replicas and the copyrightability of AI-generated work, respectively.

The Office will publish an update to the Compendium of U.S. Copyright Office Practices, the administrative manual for registration. Following a public notice requesting comments, the update will include further guidance and examples relating to the registration of works containing AI-generated material.

Current Scenario in China

In [China, the Copyright Law](#) protects works generated by AI systems. However, issues are still ambiguous, such as ownership of copyright in completely AI-generated works and fair use of copyrighted material in AI research. China also faces challenges related to the enforcement of copyright laws.

A Comparative Overview and Future Directions

Based on the comparative analysis of the EU, US, and Chinese approaches to AI copyright, each approach has strengths and weaknesses. The EU and the US have more specific legal frameworks and established case law around AI copyright, while China's laws are less developed and more ambiguous. The EU approach is more proactive and has specific legal frameworks for AI-generated work. At the same time, the U.S. relies on its existing laws for this purpose, and it has recently taken initiatives to address requirements for AI work. Even though China emphasises human guidance in the A-generated work and recognises the user as the copyright owner of the work thus created, uncertainties remain over autonomously generated AI works. Most jurisdictions, like India and South Asian Nations, have yet to

frame laws that explicitly deal with AI. Therefore, it is recommended that these countries benefit from the strengths of the approaches mentioned above and adopt a law suitable to their country's environment. Countries like India, which have complex legal systems, should start working on their legal landscape regarding AI copyright infringement before the law gets misused.

To improve the effectiveness of these approaches, it is essential to continue to monitor the development of AI technology and its impact on copyright law. As newer technology like AI continues to evolve rapidly, it is necessary to remain informed about emerging legal issues and adapt existing frameworks accordingly. In the 21st century, technology is crucial in transforming the world, and we need to find a way to govern and stick to traditional policies and conventional mindsets. While establishing international standards and guidelines for AI copyright could be a potential next step, it is a complex and challenging task requiring extensive collaboration and consensus-building among stakeholders. Therefore, it is crucial to approach this issue cautiously and take incremental steps toward addressing the challenges and uncertainties in this area.

Conclusion

The recent copyright cases have led many countries to adopt a specific law regarding their copyright infringement. And as it's seen, most countries, including the UK and the US, do not recognise AI as a legal entity. But it can't be said that this will be the exact position after years, and looking at how the world has become dependent on every technology discovered, AI's influence will likely increase in art, music, literature and the like with time. By looking at how the current provisions of the Copyright Act of India can be misused, it is highly recommended that Indian policymakers think in this direction and come up with long-term provisions which might protect people's interests in the future. By analysing the requirements of AI in all the leading countries of the world, we have concluded that even though Copyright Law related to AI is in its nascent stages at the international level, it has seen significant development in some countries to become an example for all the countries to make law in this aspect.

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