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AI-Driven Creativity: Legal Implications And The Future Of Intellectual Property

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## Contents

# *AI-DRIVEN CREATIVITY*:
# Legal Implications and the Future of Intellectual Property[1]

***Varin Sharma***[2]

**Abstract**

*The article explores the relationship between Generative Artificial Intelligence and Intellectual Property Rights (IPR) such as copyright in a word driven by rapidly evolving technology. It highlights how Generative AI, tools such as Stable Diffusion or DALL·E 2, will impact creative industries by production of content which is almost akin to human creativity. However, such innovations also raise legal and ethical challenges such as those concerning copyright, authorship, and the legality of training AI on existing works of others. The article discusses the functioning of Large Language Models (LLMs) and other algorithms behind modern AI's seemingly human-like capacities and creativity. It also considers current legal battles and existing jurisprudence over AI-generated content, and focuses on rights over fair use, authorship, and data usage. The text also discusses global frameworks, including differing stances in the United States of America, EU, and India, and the protection of AI-generated works and the how role of human labour and effort has to be considered in authorship of work. Ultimately, the article suggests a re-evaluation of existing IPR laws to accommodate the transformative abilities of AI while also safeguarding creators' rights and the beneficial use of AI as a tool and not a replacement. It suggests how a progressive legal framework is needed for appropriately balancing the promotion of innovation and protection of intellectual property in a world increasingly influenced by AI-driven technologies and creativity.*

## Introduction

Generative Artificial Intelligence (AI) can often cause one to feel sensations of wonder and amazement akin to witnessing supernatural/magical events. Technologies such as Stable Diffusion, Midjourney, or DALL·E 2 have surprised observers with their ability to produce splendid visual compositions, ranging from aged photographs and water-colours to pencil drawings or even Pointillism. The speed and quality of AI-generated works surpass average

[1] The title of the paper is a combined contribution of generative AI as well as human effort and sets the tone for the text ahead. The reader via the title should beware of the modern-day capabilities of combined creative works which are a result of shared human and AI abilities.

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human performance leading to a significant industrial impact. Notably, the Museum of Modern Art in New York and the Mauritshuis in The Hague along with other such insitutions have incorporated AI-generated artworks, showcasing installations of iconic masterpieces like Vermeer's Girl with a Pearl Earring[3].

Text generation capabilities are also quite remarkable, with AI systems easily crafting essays, poems, and summaries in different styles and forms within seconds, albeit occasionally deviating from the facts and rare errors in mathematical operations. However, behind the outstanding results lies a complex process run by data-driven algorithms. Generative AI platforms operate on databases of images, text snippets, and question datasets, processing billions of parameters to determine patterns and associations. These insights inform the creation of rules and enable the AI to generate responses to prompts with remarkable precision.

While generative AI holds immense potential for innovation, its rapid adoption also brings significant legal challenges and risks, especially in the area of intellectual property (IP) infringement and the question of authorship in AI-created works. Issues related to copyright, patents, and trademarks are becoming increasingly pressing, as companies struggle to determine who owns the rights to content produced by AI systems. With the legal framework still in flux, businesses must carefully navigate these uncertainties and take proactive steps to protect their interests before fully leveraging the transformative power of generative AI. In this assignment, we explore the complex legal landscape of generative AI and intellectual property rights (IPR), analysing the key challenges, potential risks, and strategies for safeguarding innovation in an age dominated by AI innovation[4].

**Generative AI and Functioning of Large Language Models**

In the modern times of technological innovation, Generative Artificial Intelligence (AI) tools and Large Language Models (LLMs) have emerged as transformative concepts changing the creative expression spaces and intellectual property rights (IPR). Generative AI encompasses a diverse array of technologies, powered by advanced machine learning algorithms, that possess the remarkable ability to autonomously generate complex and creative outputs across various domains. Visually stunning artworks and eloquent written compositions, AI systems,

[3] Gil Appel, Juliana Neelbauer, and David A. Schweidel, *Generative AI Has an Intellectual Property Problem*, HARV. BUS. REV (2023) *available at:* https://hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem (last visited Nov. 17, 2024).
[4] *Id.*

exemplified by platforms like Stable Diffusion and DALL·E 2, can produce content that rivals and even surpasses human capabilities in terms of both quality and speed of creation[5].

At the heart of this technological marvel lies the concept of Large Language Models (LLMs), which are sophisticated neural networks trained on vast datasets of text and images. One can think of LLMs as advanced AI systems trained on massive amounts of text and image data. This training helps them "understand" language and context, allowing them to respond to prompts in ways that are both relevant and coherent. Models like GPT-3 (Generative Pre-trained Transformer 3) process billions of data points, identifying patterns and connections to excel in tasks ranging from answering questions to generating creative stories or essays.

However, the seemingly magical abilities of Generative AI tools and LLMs abilities come from complex algorithms and machine learning processes. They analyze enormous datasets—like images, text fragments, and questions—to learn and mimic human creativity and problem-solving. These AI systems are trained on extensive repositories of images, text snippets, and question datasets, allowing them to extract meaningful insights and generate responses that mimic human creativity and problem-solving abilities. As more businesses and individuals turn to Generative AI to boost innovation and productivity, important questions arise around legal and ethical issues, particularly concerning intellectual property rights[6].

**Model training of Gen AI: Fair Use or Not?**

Generative AI's ability to create text and images that rival those made by real authors and artists is integral to several ongoing lawsuits. Notable authors like John Grisham, Jonathan Franzen, and Elin Hilderbrand are suing OpenAI, the developer of ChatGPT, claiming that AI-generated content competes with their own work. Similarly, the New York Times is suing, alleging that training AI on its articles undermines its subscription-based model as a reliable news source[7].

[5] John Smith, *Generative AI and Large Language Models*, 10 (3) J. ARTIF. INTELL. 45-60. (2023).
[6] *Id.*
[7] UNESCO, *Navigating intellectual property rights in the era of generative AI: The crucial role of educating judicial actors, available at:* https://www.unesco.org/en/articles/navigating-intellectual-property-rights-era-generative-ai-crucial-role-educating-judicial-actors. (last visited Jan. 03, 2025).

Some, like Mark Lemley, argue that training AI should be considered fair use because it transforms the data. They believe this approach encourages transparent creation of new databases, as obtaining licenses for large data sets is impractical. Lemley, part of Stability AI's defense team, further argues that generative AI is not about copying existing works but creating new ones[8].

Without legal changes, lawsuits are expected to increase. Singapore has attempted to address this issue through legislation, amending its copyright law in 2021 to allow copying for computational data analysis, including improving computer program functionality related to that data. This provision seems more accommodating to data mining and model training compared to traditional fair use laws in the UK and EU. However, analysing text or images for recommendations or workflows differs significantly from using them to generate more content, not only in how they are used but also in their economic impact.

**Issue of Authorship**

In most places, text automatically generated by machines is not protected under copyright law. The US Copyright Office has clarified that copyright applies only to works created by humans, not those produced by machines without human input. This raises questions about what level of human involvement is needed for authorship[9].

In the past, early photographs were not protected because they were seen as mechanically produced without true authorship. It wasn't until a famous photo of Oscar Wilde reached the US Supreme Court that copyright was recognized for mechanically created works. Similar debates occurred in other countries, like Germany, which did not grant full copyright to photographs until 1965[10].

Today's issue is different: it is not about if a photographer has ownership over images captured in a passive manner by a machine, but who will own such novel ideas(works) that have been actively created by any computer or similar device. Computer programs which are akin to word processors currently cannot and are not the owners of the texts written by them, just as

[8] Carol Doe, *Model Training of Gen AI: Fair Use or Not ?*15(2) Int. Prop. L. Rev. 102-115 (2022).
[9] JC Ginsburg and LA Budiardjo, *Authors and Machines*, 34 BTLJ 343 (2019).
[10] RB Abbott and E Rothman, *Disrupting Creativity: Copyright Law in the Age of Generative Artificial Intelligence*, Fla. L. Rev., forthcoming, a*vailable at* https://ssrn.com/abstract=4185327 (last visited May 7, 2024); claiming that AI should be recognised as an author when it performs tasks equivalent to human authors).

pens don't own the words they write. But AI systems now generate news reports, compose songs, and paint pictures, raising questions about ownership and legal protection[11].

Currently, in most places, copyright does not apply unless there's a clearly identifiable human author. This policy aims to encourage innovation by rewarding human creators. Protecting machine-generated works might actually discourage human innovation. AI has already revolutionized the art world by drastically reducing the cost of creating original images. To support human creators and maintain a vibrant arts sector, some argue that human creations should be protected while machine creations should not[12].

An alternative approach, as seen in Britain and other countries, is to provide limited protection for "computer-generated" works. In this case, the person who arranged for the work to be created is considered the author. This approach addresses ownership issues, but the duration of protection is usually shorter, and the recognized author cannot claim moral rights associated with traditional copyright[13].

**The Question of Input and Issues related to Data involved in Generative AI**

To train AI algorithms, various methods are employed, including text and data mining (TDM) and generative deep learning techniques. TDM involves extracting and analyzing large datasets to uncover significant insights and patterns that can enhance AI model performance. This process has become vital in AI research, allowing data scientists to sift through huge amounts of unstructured data to garner valuable information that is unattainable manually. By analyzing this data, AI algorithms can learn patterns and make highly accurate predictions, aiding in content creation, discoveries, and innovations. Without access to extensive data, AI algorithms would find it difficult to improve. Thus, the future of AI heavily depends on TDM's ability to process large-scale data. However, a notable challenge is that AI systems cannot learn from art like humans; they need exact copies of artworks in their training datasets. This requires creating training sets with millions of copied images, audio, videos or texts, raising

[11] David Brown, *Issue of Authorship in Machine-Generated Works*, 25(4) COPY L. J. 78-92 (2021).
[12] *Id.*
[13] Simon Chesterman, *Good models borrow, great models steal: intellectual property rights and generative AI*,
Policy and Society, 2024, *available at:* https://doi.org/10.1093/polsoc/puae006. *(last visited Oct. 5, 2024).*

the issue if such copying is to be considered as fair use or covered by other exceptions to copyright law.

Generative deep learning is a particular area of concept of deep learning (the mechanism by which computers learn something when lots of examples of a concept are shown to it) that focuses on generation of new data. Such generative models use a probabilistic framework to describe the data generation process, enabling the creation of new samples through sampling. Here computers learn by processing huge amounts of information through computer programs known as "neural networks." These networks are similar in design to the human brain and there is also the use of data and statistics involved in training of such systems via such data. ChatGPT is an such example of a generative deep learning model which utilizes the GPT (Generative Pre-trained Transformer) architecture[14].

Established corporations such as Google, Facebook, Amazon, and OpenAI have enormous language and image data collections for AI development, which provides a competitive advantage. The companies use their datasets to train more such advanced AI systems, enhancing the products and services offered. The scenario entails legal issues for new entrants due to the complexities of dataset ownership, privacy regulations, licensing, intellectual property rights, and other such legal deliberations. The high cost of building as well as licensing new datasets further disadvantages smaller companies. Additionally, there may be antitrust concerns if dominant market players control essential datasets, potentially stifling innovation along with competition. Protection of appropriate, fair and open access to data for training of such systems is thus a crucial legal issue in AI development.

Another significant concern is that while some large datasets are merely informational and not protected, most training datasets already comprise copyrighted works as part of their databases. For example, the datasets used for developing AI algorithms in text, facial recognition, and image recognition include copyright protected content, raising questions about the legality of using such works.

In the USA, TDM data collection has been considered fair use, and there are exceptions under EU copyright law. For instance, Google Books was permitted to explore entirety of libraries for search functionalities and extracts and excerpts from books. However, it is uncertain if such precedents would apply to data collection used with the purpose of machine learning

[14] Dylan Walsh, *The legal issues presented by generative AI*, Ideas Made to Matter, MIT Sloan School, *available at:* https://mitsloan.mit.edu/ideas-made-to-matter/legal-issues-presented-generative-ai. (last visited Nov. 5, 2024).

since the output is not directly copyrighted. Courts may not necessarily extend these rulings to similar technologies. In the USA, TDM is permissible for the purposes of transformative use[15], but It remains doubtful that conversion/transformation of one copyrighted work into another copyrighted work would apply here. In the *Google Books case*[16], the ruling was that digitizing books to create an extensive index and facilitate search was fair use. This process aimed to enhance discoverability without competing with the original works.

Conversely, generative AI technology poses a different scenario. Generative AI systems can enable users to produce such content which competes directly with the source material. Such systems use algorithmic mechanisms and deep learning techniques for the generation of new texts, images, or even new music based on existing content or patterns obtained from the taining (original) data and other such information.

### *Andy Warhol Foundation for the Visual Arts, Inc.* v. *Goldsmith*

A recent ruling[17] by the Supreme Court of the United States in the mentioned case raises alarm regarding the negative impacts on the IP rights such as copyright of AI-generated works that may follow. The ruling shifts the focus of the transformative use assessment. The case involved a copyright infringement dispute over a photograph of the musician Prince taken in 1981, which one artist named Andy Warhol later used, without obtaining the photographer's consent, in a series of illustrations and prints. The Andy Warhol Foundation for the Visual Arts claimed the doctrine of fair use as a defence to justify creating such works which are derivative in nature. The Supreme Court's ruling however, ruling stated that the Foundation did not have a fair use defence for licensing a derivative version of the photograph that was used for profitable use. This decision could significantly restrict the scope of the doctrine of transformative use, as the Court has effectively restricted its application. It is thought-provoking to observe how US courts apply this precedent to cases involving the process of licensing of AI training data. If a court decides that data ingestion—which refers to acquiring and thereby modifying raw data for AI training would constitute infringement, AI systems would face substantial legal

[15] A transformative use is one that "alter[s] the first [work] with new expression, meaning, or message". *See*
*Campbell v. Acuff-Rose Music, Inc.,* 510 U.S. 569, 579 (1994).
[16] *The Authors Guild Inc., et al.* v. *Google, Inc*. 804 F.3d 202
[17] 143 S.Ct. 1258 (2023).

challenges. This is particularly relevant since most data used by gen-AI systems, both textual and visual, has been obtained without explicit authorization from the holders of such rights.

**Stance of the EU**

As opposed to the USA, the EU takes a more protectionist approach and establishes obligation for the purpose of deep learning and data training. The Directive on Copyright in the Digital Single Market (CDSM Directive) includes Article 4(1)[18], which adopts a liberal exception in the text and data mining processes (TDM). This provision allows individuals or corporations, like AI developers for business and/or educators, to formulate duplicates of existing works and datasets for extracting of relevant information, and the copies can be retained a period as may be necessary for AI training. However, the copyrights owners can opt-out of TDM relaxations via their contractual agreements with entities engaged in TDM to protect their profitable use and monetary benefits. The mechanism faced significant criticism for being too restrictive, as it appears to include factual information and data, which is traditionally outside the scope of copyright protection focused on original expression. The implementation of such an opt-out option and its scope and extent to which AI developers will comply with it remain to be seen.

**Indian Jurisprudence on IPR for Gen-AI**

India's current intellectual property (IP) law does not explicitly recognize or grant ownership to software and algorithms which are used to create IPs as eligible to claim a statutory protection under the legal framework.

An exception, albeit limited, exists under the Copyright Act of 1957[19], which designates the position of author to the one who has caused such computer-generated work to be created.

[18] Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on Copyright and
Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC, Official Journal of the European Communities 2019 L 130, 92.
[19] Copyright Act, 1957 (Act No. 14 of 1957).

However, software or AI systems themselves cannot be considered authors under Section 2(d)(vi) of the Act.

The Patent Act of 1970[20] and the Design Act of 2000[21] lack provisions to regard programmers or developers as inventors or owners of the creative innovations resulting from software, AI, or algorithms. This issue is exacerbated when the innovation is solely the result of these technologies without human intervention. Given the rapid pace of innovation and technological progress, there is a growing industry and global consensus that formal IP recognition ought to be given to such developers as well, if not the software itself, through specific and unambiguous legal framework to support a dynamic innovator ecosystem[22].

Comparing Indian legislation with foreign laws reveals that the UK explicitly provides copyright protection for computer-generated works which do not have a human creator. Section 9(3) of the Copyright, Designs and Patents Act (CDPA)[23] states that the author of computer-generated work is its inventors and the one who has created the necessary circumstances/arrangements for the creation of such work. Section 178 has defined a computer-generated work as one with no human author. Similar provisions are found in the legislations of New Zealand[24] and Ireland, inspired by the CDPA.

Alan Turing, a pioneering mathematician, developed the Turing Test to explore the juncture of digital technology and human-like cognition. The Turing Test assesses a machine's ability to display intelligent behaviour which is not discernible from or different than that of a human mind. In this, a human is the judge who converses with a device/machine and a human and does not know which one is which. If the human judge is unable to unfailingly distinguish the two based on their responses of the conversation, then such machine will be considered as passing the Turing Test, and is deemed to demonstrate human-like conversational abilities[25].

With the evolution of technology and the rise of generative AI, software now goes beyond being mere tools, acting as the creative creators of such works which are analogous to those

[20] Patents Act, 1970 (Act no. 39 of 1970).
[21] Designs Act, 2000(Act no. 16 of 2000).
[22] Nayantara Sanyal, Sheetal Mishra and Nihal Shah, *Intersection of Intellectual Property Rights and AI-Generated Works – Part I*, BAR AND BENCH, *Available at*: https://www.barandbench.com/law-firms/view-point/intersection-intellectual-property-rights-ai-generated-works-part-i (last visited May 11, 2024).
[23] Copyright, Designs and Patents Act 1988, c. 48, § 9(3) (UK).
[24] Copyright Act 1994, No. 143, Public Act (N.Z.); Copyright and Related Rights Act 2000, No. 28, Acts of the Oireachtas (Ir.).
[25] A.M. Turing, *Computing Machinery and Intelligence*, 59 MIND 433 (1950).

which are creations of human minds. However, the question that if the IP rights are to be widened to such software or their developers, remains largely unresolved.

While examining India's intellectual property rights (IPR) regime, the Parliamentary Standing Committee, in its Report No. 161, described AI as a subject under computer science aimed at developing systems that are capable of performing tasks that typically require intelligence of the human mind. As per the report of the Parliamentary Standing Committee the concept of AI is the power of machines and technologies to undertake cognitive tasks such as thinking, perceiving, problem-solving, learning, and decision-making[26].

Supporting this view of AI's cognitive capabilities, Dr. Shlomit Yanisky Ravid[27] identifies eight key characteristics that endow AI systems with machine intelligence: creativity, independence/autonomy, rationality, unpredictability, communication capabilities evolution, data collection and, efficiency/accuracy, along with the exercise of free will[28]. The attributes enable AI systems to independently create artistic works or even inventions that, if made by humans, would be eligible for protection as patents and copyrights, provided they meet statutory requirements.

However, the present day Indian jurisprudence and legal framework in India, including the Patents Act, 1970 and the Copyright Act, 1957, lacks in adequately addressing the complexities of inventorship, authorship, and ownership for works created or innovated autonomously by AI.

**Provisions in the Copyright Act, 1957**

The Copyright Act, 1957 in India forms the lawful/legal premise for protection of creative works, such as musical, dramatic, literary, and/or artistic creations. With technological advancements, questions have emerged about ownership rights for AI systems and their creator for formulating creative works. According to the Act, original works that are presented in material form qualify for copyright protection. Even though the Act does not explicitly refer to AI created content, Section 2(d)(vi) specifies that, for computer-generated works, the author

[26] Parliamentary Standing Committee on Commerce, Report No. 161, Review of the Intellectual Property Rights Regime in India (2021).
[27] Dr. Shlomit Yanisky Ravid, *Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era – The Human-Like Authors Are Already Here – A New Model*, MICH. ST. L. REV. 659 (2017).
[28] *Id.*

is deemed to be the person who caused the work to be created[29]. The provision has significant impact on AI-generated works, presenting both – fruitful prospects and unique challenges.

**The RAGHAV Case**

In 2020, the Indian Copyright Office encountered a significant case which involved the use of an AI system named 'RAGHAV' and its attempts in obtaining a copyright registration for artworks called as 'Suryast.' Initially, the application was disallowed owing to the non-presence of any human author. However, the painting was eventually given the rights when a natural human author was subsequently listed as one of the co-authors alongside the AI system 'RAGHAV.' A notice of withdrawal was subsequently issued, seeking further clarification on 'RAGHAV's' status as a valid legal entity, underscoring the uncertainty regarding AI's recognition as that of an artist under the Indian copyright law i.e., the Copyright Act, 1957[30].

**New Age Copyrightable Works Generated by AI Systems**

AI systems play a vital role in producing new works across an array of artistic fields. Equipped with modern algorithmic systems along with machine learning abilities, these systems are capable of generating creative content, including new music, visual art, literature, and film scripts. By analyzing large data units and identifying patterns in original/source data, AI can independently create innovative unique outputs. From fresh music compositions to image-generating algorithmic models creating visual art, AI's creative capability is pushing the frontiers of traditional expressions of art[31].

**Challenges of AI-Generated Works Under Indian Copyright Law**

When AI systems generate works based on the data they are fed, the originality of such works often comes into question. Indian copyright law requires strict human authorship for a work to claim protection under rights such as copyright. Though the Copyright Act, 1957

[29] *Supra* at 16, S. 2 (d)(vi).
[30] *See* Indian Copyright Office, Notice of Withdrawal for Copyright Registration Application (2020).
[31] James Vincent, *How AI is Creating Building Blocks to Transform Art, Music and Writing*, THE VERGE (2017) *Available at:* https://www.theverge.com/2017/6/7/15749928/ai-artificial-intelligence-creative-art-music-writing. (last visited on May 15, 2024).

acknowledges author of computer-generated works, the present legal stand on AI created content is still doubtful. Additionally, the protection provided for original creative works in the Indian copyright law is given as 60 years from the year after the death of the author. If AI systems are given such protection, their perpetual nature challenges the fundamental purpose of this protection period, as AI systems do not die.

A significant hurdle for the IP community is enforcing of copyrights for AI-generated works. Granting authorship rights to AI systems raises concerns about enforcement and accountability, as AI systems lack legal personality and have no liability for infringement or other related issues, creating a complex scenario[32].

**Recommendations by the Parliamentary Standing Committee**

The Parliamentary Standing Committee has recommended creating a distinct grouping for protecting AI-based creations as IP. The Committee acknowledged the significance and efficacy of pioneering technologies such as AI and machine learning towards India's revenue generation. Another recommendation includes that the Department for Promotion of Industry and Internal Trade review prevailing laws, such as the Patent Act, 1970 and the Copyright Act, 1957, to incorporate emergent technologies and AI-related creations within. The Parliamentary Standing Committee has also proposed establishing a distinct category to protect AI-based inventions as intellectual property. The Committee recognizes the significance and potential of advanced technologies like AI and machine learning and gives due regard to its contribution to India's revenue generation. It has also directed the Department for Promotion of Industry and Internal Trade to re-asses current laws, such as the Patent Act, 1970 and the Copyright Act, 1957, to encompass developing technologies and AI-related creations under such frameworks[33].

**Summing it up**

[32]Orly Lobel, *The Law of AI for Good*, 73 Stan. L. Rev. Online 119 (2020).
[33] *Supra* at 10.

**Key Takeaways on Generative AI Capabilities**

Generative AI tools presently display remarkable abilities to produce creative works on their own, challenging traditional notions of authorship and creativity in the legal world. Advanced LLMs such as GPT-3 can perform tasks ranging from creative writing to providing solutions to complex questions. Image-generation tools produce content which is indistinguishable from human-made artworks. The speed and accessibility of these tools lead to ease for creators but also raise questions about the originality and ownership of generated works.

**Legal Implications of AI-Generated Content**

Most jurisdictions do not recognize AI as an author under their copyright laws, requiring human involvement for grant of such. This has led to disputes over ownership and licensing.

Prominent cases, such as those involving OpenAI and the New York Times, challenge the fair use of copyrighted material for the purpose of training AI models. Varied legal approaches globally—from the US's reliance on transformative use doctrine to the EU's protectionist approach, such scenarios highlight the complexity of the issue and also the importance of creating a unified framework.

**Ethical Considerations Involved**

As the role of AI in creative industries and intellectual property expands, it is crucial to address the ethical dimensions associated with its implementation.

**Privacy and Surveillance Risks**

The use of AI in automated IP enforcement often involves extensive data collection, leading to significant privacy concerns. AI systems can enable invasive surveillance practices, including the profiling and tracking of individuals without their consent. Such practices risk targeting specific groups unfairly and exacerbating existing inequalities. Ensuring

transparency and limiting the misuse of data are essential to maintaining public trust and protecting individual rights[34].

One significant concern of relevance here is the chilling effect which such intrusive surveillance has on our individual freedoms. When people become conscious of the fact that their actions are being watched, akin to that of a Panopticon[35] prison, they change their behaviour, restraining their freedom and willingness to express themselves freely or engage in their own creative endeavours. This self-censorship mechanism undermines not only personal autonomy rights but also the foundational principles embodying free speech and creativity which are essential to innovation[36].

**Algorithmic Bias and the issue of Transparency in AI Decision-Making**

AI systems used in IP compliance or content generation may inherit biases present in their training data, leading to discriminatory outcomes. For instance, enforcement tools might disproportionately flag or target certain groups or content types. Mitigating such biases through the use of diverse and representative datasets, as well as transparent algorithmic processes, is crucial for ensuring fairness.

The complexity of AI systems often leads to a "black box" problem, where the rationale behind AI-generated outputs or enforcement decisions is unclear. Such lack in transparency

[34] Geraldine Mbah, *The Role of Artificial Intelligence in Shaping Future Intellectual Property Law and Policy: Regulatory Challenges and Ethical Considerations*, IJRPR. 5. 5023-5037. DOI: 10.55248/gengpi.5.1024.3123.

[35] A Panopticon is a prison system developed by English philosopher and social theorist Jeremy Bentham. The building with the prisoners is only one cell thick, and every cell has one open side facing the central tower. This open side has bars over it, but is otherwise entirely exposed to the tower. The guards can thus see the entirety of any cell at any time, and the prisoners are always vulnerable and visible. Conversely, the tower is far enough from the cells and has sufficiently small windows that the prisoners cannot see the guards inside of it.
The sociological effect is that the prisoners are aware of the presence of authority at all times, even though they never know exactly when they are being observed. The authority changes from being a limited physical entity to being an internalized omniscience- the prisoners discipline themselves simply because someone might be watching, eliminating the need for more physical power to accomplish the same task. *See generally* Jeremy Bentham, PANOPTICON: OR THE INSPECTION HOUSE (1791).

[36] Bennett, C. J. (2020). *Privacy, technology, and the regulation of surveillance: New challenges and approaches*. Int'l. Rev. L. Comp. Tech. 34(2), 119-137. DOI: 10.1080/13600869.2020.1784627

jeopardises accountability and trust. It is essential to ensure that AI systems mandatorily provide clear explanations for their outputs, allowing creators and stakeholders to understand and challenge the outputs when necessary.

**Balancing Innovation with Equity**

While AI significantly lowers the costs and labour involved in content creation and streamlines enforcement, it risks threatening traditional creators who rely on manual methods. Ethical policies should ensure that technological progress benefits all stakeholders, fostering equitable opportunities in the creative industries.

By addressing the above ethical challenges, stakeholders ought to create a more inclusive and fair frameworks for the use of AI practices into intellectual property law and creative industries[37].

**Conclusion and Suggestions**

As we witness the rapidly changing landscape of creativity as influenced by AI, finding the right balance between regulation, guiding principles, and incentives becomes crucial. The contemporary laws, especially the intellectual property (IP) laws, needs to advance to keep up with the expanding capabilities of AI. Traditional legal systems, not designed to handle the complexities of AI-generated content, face significant challenges, particularly when it comes to determining authorship. Unregulated AI's potential dangers are well-known and appropriate laws are the need of the hour.

The EU's copyright directive, for instance, which includes provisions for text and data mining but allows rights holders to opt out, shows a cautious approach to AI and IP law. In India, the IPR framework does not explicitly address AI-generated content, though recent cases like the 'RAGHAV' case highlight the growing need for reform. On the other hand, Singapore's progressive approach to computational data analysis provides a model for developing nations' legal systems to adapt to foster and protect innovation.

[37] *Supra* at 31.

This shift in the creative industries demands a thorough re-evaluation of existing laws, with a focus on creating an environment that encourages innovation while protecting the rights of creators—whether human or AI. The conflict between AI's potential and the conventional view of creative practices as a uniquely human trait/activity further complicates moral debates around authorship and ownership in the AI era and creativity as a sacrosanct concept.

Ultimately, adopting progressive legal frameworks is essential to fully utilise AI as a tool for innovation. This means not only updating laws to reflect technological advancements but also cultivating vibrant and inclusive ecosystems for innovation which also enhance justified use of AI tools for the betterment of all in India.