

# Artificial Intelligence and Intellectual Property Rights — A Copyright Perspective

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The potentially disruptive interaction between Artificial Intelligence (AI) and creative Intellectual Property Rights (IPRs) is one of the major challenges of the 21st century as AI systems are being increasingly utilized to generate creative works. This article addresses these questions through the lens of copyrightability of works created by AIs as it relates to originality, authorship, and ownership. The paper addresses recent debates about whether current copyright frameworks could be adapted to accommodate AI-generated content and outlines practices around the world. It also explores the crucial role of human intervention in AI output, arguing whether such collaborations deserve co-authorship credit. The paper ends with suggestions to amend the laws which apply in these circumstances, or to create a new legal framework to resolve these issues.

**Keywords:** Artificial Intelligence, Copyright, Authorship, Ownership, Modicum of Creativity, Legal Framework

Artificial Intelligence (AI) is a technology that has transformed industries, many of which are reshaping the way in which creative processes work and what these processes produce. These capabilities of OpenAI's GPT-4 based systems that produce human-like text, and DALL-E which generates visually appealing artwork, illustrate the ability of machines to autonomously produce human-level creative outputs.<sup>1</sup>

Copyright Law is fundamental in the professional context of IP rights, and was designed to safeguard original expressions made by authors. This framework has historically been based on human creativity, and it is not clear how that should be applied to works created by an artificial intelligence. Three specific issues emerge as most critical:

- (i) Are the works generated by AI systems sufficiently original to satisfy the legal requirements?
- (ii) Who deserves credit or who shall be labelled as the owner of such works — the developer, the user, or the AI system itself?
- (iii) What impact can recognising artificial intelligence as a creator have on ownership in these works, and more widely?

## Evolution of Copyright Law

The nature of Copyright Law has changed very dramatically since the original conception. In 1886, the Berne Convention established a framework for protecting literary and artistic works around the world, based on the notion of human authorship.<sup>2</sup> The

emphasis on human originality is compounded by significant judicial interpretations notably that of the U.S. Supreme Court in *Feist Publications v Rural Telephone Service Co.*, which clarified that originality necessitates independent creation and a modicum of creativity.<sup>3</sup>

Similarly, India's Copyright Act, 1957 makes no exception to the general position and defines author as the person who creates the work.<sup>4</sup> This creates a major gap in the law, however, as under the Act there is no mention of what to do if non-human entities contribute to making work.

## Place of AI in Creative Fields

The introduction of AI systems such as AIVA (Artificial Intelligence Virtual Artist) and ChatGPT has opened new avenues for creative expression. For example, AIVA creates original music and ChatGPT has written essays, poetry, and fiction.<sup>5</sup> The capability of these systems to autonomously produce outputs poses a fundamental challenge not only to the definition of creativity, but also to whether this output can legitimately be recognised by law.

## Methodology

This paper aims to tackle the following issues:

- (i) As per the Indian Law, does an AI-generated work fulfil the originality requirement primarily needed for copyright protection?
- (ii) Should we attribute authorship to non-humans?
- (iii) Which policy interventions would best balance the advance of technology with those bedrock principles of Copyright Law?

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Using a doctrinal approach, the paper analyses legislative texts and judicial bodies of work alongside academic discourse to present a constructive basis for responding to these juristic challenges.

### **Conceptual Framework: Artificial and Creativity**

The rise of AI has fundamentally transformed our ancient preconceptions of creativity, questioning notions of originality, authorship and human involvement in the creative process. AI tech has evolved from simple rule-based systems to complex generative models that are good at generating content similar to what humans produce.

#### **Development of AI and Generative Models**

Artificial Intelligence was a term first coined by John McCarthy back in 1956 to refer machines that can do work which ordinarily require human intelligence.<sup>6</sup> The early AI systems are deterministic and fixed rules were programmed to perform a particular functionality. But the emergence of machine learning and neural network based algorithms changed AI from a programmed response system to one that allows systems to "learn" from data and make decisions on their own.<sup>7</sup>

Contemporary generative AI systems like OpenAI's DALL-E and GPT-4 mark a true advancement in tech. These models process extensive datasets to generate outputs with a degree of novelty and creativity. For example, DALL-E creates images from text, turning ideas into artwork<sup>8</sup> and GPT-4 writes clear essays, stories and poems that are as sophisticated and stylistically advanced as those written by humans.<sup>9</sup> This troubling confusion between machine creativity and human creativity of course poses a challenge to the traditional paradigms of copyright.

#### **Concept of Creativity in Copyright Law**

The concept of creativity in Copyright Law is based on the originality of the work. The originality of the works generated by AI is a little bit controversial. Some contend that AI generates new works solely by rearranging older templates and therefore lacks the intent and intellectual labour involved in human creativity.<sup>10</sup> Supporters argue that since AI creates new things from data, it meets the originality test and creativity is in the process not with who created it.<sup>10</sup> There are several high profile examples outline the role that AI can play in creative industries.

#### ***Edmond de Belamy (2018)***

This painting was generated by an AI algorithm from the Paris-based art collective 'Obvious' and sold

at Christie's Auction for \$432500. Across the world, debates erupted around the originality of artworks and whom to credit authorship to: The collective? Developer? Or AI system itself?<sup>11</sup>

#### ***The Next Rembrandt (2016)***

This AI-generated painting, based on an extensive analysis of Rembrandt's works, demonstrates the machine's ability to emulate human creativity while raising questions about originality, given its reliance on pre-existing styles.<sup>12</sup>

#### ***AIVA Music Composition***

AIVA (AI Virtual Artist) creates and writes original songs which are used for advertisements as well as in film scoring. These compositions are so devoid of direct human input that the traditional copyright frameworks lack applicability to them.<sup>13</sup>

#### ***AI Literature***

GPT-4 has written essays, short stories, and poetry; some of these pieces have been printed next to human work. These outputs are making it harder to differentiate between a human and machine generated content.

These examples imply a need for frameworks that address the emerging specificities of AI works.

#### **Human Inputs and Collaborative Creativity**

AI outputs tend to be critically dependent on human inputs. As a case in point, DALL-E users craft written prompts to inspire the generation of imagery, whereas developers compile datasets and algorithms with specific goals in mind. This partnership brings up questions of co-authorship and whether humans contribute enough to the process to meet the threshold for copyrightability.<sup>14</sup>

As it stands now, authorship is attributed to the person whose act brought the work into existence. It is less clear, however, how much human intervention would actually be needed in order to claim authorship of a work that was created by an AI. Whether the user input is material contribution or in fact just activates autonomous functions of a machine will have to be judged by courts and policy makers.<sup>15</sup>

#### **Creativity and Originality as Transformative**

AI's ability to transform existing data into novel outputs aligns with the "transformative use" doctrine in copyright law, which assesses whether a new work adds significant value to its source material.<sup>16</sup> For example, while producing a unique audio experience,

AI-generated music often integrates aspects of existing compositions, DALL-E's images are novel only because they can combine existing styles and other works in fresh ways. Those supporting the validity of AI-generated works claim that these changes satisfy originality standards due to their new recasting of pre-existing inputs.

#### **AI and Creativity — Philosophical Perspectives**

The debate over AI-generated works is in part philosophical, including questions of creativity and authorship. Creativity, traditionally defined, is not a hall of mirrors filled with instinctual inspiration and without premeditation. But more recent viewpoints acknowledge that the way to creativity can be a collective process, even involving non-human agents.<sup>17</sup> Some suggest that the concept of authorship should be changed to make room for AI as a co-author and focus on the collaboration aspects between AI and humans, while other voices call for treating AI as a tool, where authorship would be held solely by the human user or developer.<sup>18</sup>

#### **Implications for Copyright Law**

If a recalibration of Copyright Law is required, it is because the commercially exploitable potential of AI-generated works throws down immense challenges for IP lawmakers. Key considerations include:

- (i) Authorship attribution: Should only humans get attribution for authorship, or is AI a creator all its own?
- (ii) Line of originality: What counts as original for works created with AI?
- (iii) Copyright ownership: Who owns copyright in AI-generated content – the developer, the user or the AI system itself?

These questions only highlight the urgent need for legal frameworks that can both protect new innovation while ensuring rights to creators.

#### **AI-Generated Works and Their Copyrightability**

While Copyright Law protects original works of authorship, the question of whether AI-generated works fall under such copyright protection is a complex legal and philosophical issue.

#### **Originality under Copyright Law**

Copyright protection is based on originality. To be eligible for protection, works need to exhibit some creativity or originality in their creation. Originality requires an element of "independent creation" and "a modicum of creativity" as established by *Feist*

*Publications v Rural Telephone Service Co.*<sup>3</sup> Likewise, Section 14 of the Indian Copyright Act, 1957 centres on originality as a theme for copyright subsistence.<sup>4</sup>

Traditionally, originality is understood as stemming from human thought and effort. The brushstrokes of an artist, the words of an author and the notes of a composer all are examples of creative intention. But this human-centric understanding of intelligence is challenged by AI systems. AI creates works that show novelty and creativity without direct human involvement<sup>19</sup> by analysing huge datasets with outputs generated autonomously.

#### **AI and the Originality Threshold**

Output from novel AI systems such as DALL-E 2 and GPT-4 may appear to satisfy historical standards for originality. As DALL-E can create unique and original artwork if prompted with the right words.<sup>8</sup> GPT-4 has written well-structured essays, poems and stories with good variety in style, and the top responses are often indistinguishable from human writing.<sup>9</sup> Some critics say that the AI creations we get are not truly original, as they come from previously trained data. Since AI is drawing from these reference libraries to create, the content and samples they produce blurs the difference between the original and the previously existing work.<sup>20</sup>

#### **Transformative Use Doctrine**

The "transformative use" test is applied to determine when AI-generated works are considered to be within the bounds of copyright law. This doctrine examines whether the new work is additive to, transformative of, or serves a different function than the original material. The question, therefore, could be whether AI has met the necessary floor of originality by new outputs from existing data. For example, much of the music made or assisted by AI borrows pieces from real songs but converts them into completely fresh and different sounds. Edmond de Belamy and similar AI-Generated paintings, where a new style can be observed in the artworks based on input data used to develop the algorithm.<sup>21</sup>

#### **Jurisdictional Treatments of Copyrightability**

##### **United States**

Copyright Law in the United States is, by its very nature, anthropocentric. Works generated purely by AI have been denied copyright protections by the U.S. Copyright Office, because there is no human creator involved. For instance, the images in *Zarya* of the

Dawn, a comic book generated by AI, were denied copyright protection because they were made without meaningful human involvement.<sup>22</sup>

#### **European Union**

The same is true for the European Union. The Directive on Copyright in the Digital Single Market, 2019 limited copyright protection to works that constitute "the author's own intellectual creation". This excludes machine-generated content, except where a human has contributed in a meaningful way.<sup>23</sup>

#### **India**

Neither the Copyright Act, 1957 is direct in response to works generated by AI within India. Nevertheless, judicial pronouncements like *Eastern Book Company v D.B. Modak* indicate that the originality should be human-generated and not one solely generated by AI.<sup>24</sup>

#### **Japan and Singapore**

On the other hand, Japan and Singapore took a more flexible approach. Existing provisions in Japan's Copyright Act could apply to computer-generated works, as long as it fulfills the originality requirements.<sup>25</sup> Singapore's IP Strategy 2030 focuses on building frameworks for protecting AI-generated content.<sup>26</sup>

#### **Overcoming Legal Hurdles**

Lack of express legal recognition gives rise to ambiguity when it comes to AI-generated works. In the light of the same, the following challenges are noteworthy.

#### **Legal Recognition of AI**

AI has no legal personality, and therefore, it cannot claim copyright. This means that, unlike a corporation, which in itself is a legal entity, AI is not treated as an autonomous creator; it is treated like any other tool (a hammer for example) that cannot hold legal rights.

#### **Attribution of Authorship**

Questions of authorship of an AI-generated work, which is discussed later in this paper makes the issue more contentious. Potential claimants include the developers of the AI system, the users giving prompts or inputs and the agent for whom the AI-generated work is created.

#### **Questions of Ethics and Philosophy**

Recognition of AI at par with humans could devalue the contribution of human authors and pose ethical issues in rights attribution to non-sentient beings.

#### **Ownership-Authorship Debate in AI-generated Works**

Copyright Law is predicated on the notion of ownership and authorship—ranging from the idea that creators should be entitled to exclusive rights over their works. But AI-generated works test many basic notions of authorship like who is the true creator? Is it the programmer, the user interface designer or the machine? In this content, we will look at the legal challenges ownership, authorship and to a lesser extent toward the philosophical and practical implications of AI-generated work.

#### **Legal Framework for Authorship**

Copyright Law in most jurisdictions only recognises human creators as its rights holders. As far as the Indian Copyright Act, 1957 is concerned, an author is defined as a person who creates any work and with respect to computer-generated works, the person causing such a work to be created shall be deemed to be its author.<sup>4</sup>

#### **U.S. Perspective**

The U.S. Copyright Office doubles down on the fact copyright is a human-based endeavour and refuses to issue claims for anything created purely by AI. For example, the AI-generated images in the "Zarya of the Dawn" comic book failed to be granted copyright as they had not been created with sufficient human input.<sup>22</sup> This dovetails with the idea that authorship is a human thing, and must be done intentionally.

#### **Indian Context**

Through judicial interpretations such as the one in *Eastern Book Company v D.B. Modak*<sup>24</sup>, India maintain that authorship must involve human creativity. Although Section 2(d) lists computer-generated works as copyrightable, the definition assumes human involvement which effectively excludes AI systems acting autonomously.<sup>4</sup>

#### **Ownership Challenges**

The ownership issues with AI-generated works stem from the fact that many different stakeholders may play a role in the creative process. Potential claimants include:

- (i) Developers of AI systems: It takes effort and work for developers to create algorithms and train datasets that make AI work. Attributing ownership to developers aligns with the "work made for hire" doctrine which ensure that the employers hold copyright of works created by the employees.

- (ii) Users providing inputs: A lot of creative process is driven by users asking prompts or trimming outputs. An example would be a graphic designer included in the process by using DALL-E for artwork, providing some creative input and thus deserving to be a co-author.
- (iii) Entities commissioning works: Companies or individuals commissioning AI-generated works may claim ownership under contractual agreements. It is comparable to the employer–employee relationship where the employer owns works made in the scope of employment.

#### *Co-Authorship and Collective Creativity*

Collaborations between humans and AI make a strong argument for co-authorship. In this case, the artist is responsible for much of the project that would be beyond their capacities and the AI system simply does what they cannot. To be acknowledged as a co-author, one must:

- (i) Display considerable human effort: The courts must consider the extent to which a human collaborator affected the work's originality. Substantial input could involve, for example, providing material prompts or culling outputs from an AI system.
- (ii) Define the role of AI: If AI is a tool, then its function can be compared to the camera or paintbrush. But if AI comes up with novel outputs on its own, then the role is less clear cut.

In the case of AIVA, which independently composes music though their developers and users frequently tweak the outputs, co-authorship might be appropriate if they thus distinguish between human and AI participations.<sup>27</sup>

#### **Philosophical and Ethical Considerations**

Attributing authorship to AI raises ethical concerns about the nature of creativity and intellectual property. Some argue that giving rights to machines takes away from the value of human creativity, and goes against the initial intent behind copyright law.<sup>28</sup> Proponents of attributing credit to AI argue over its potential to be a major game-changer. As an example, AI can level the playing field of creativity as it allows people who would normally not be able to create something due to a lack of traditional training or skill set be able to create quality work.<sup>29</sup>

#### **Policy Proposal for Ownership and Authorship** *Amending Copyright Laws*

Laws should acknowledge when collaboration involves AI by assigning authorship in accordance with the degree of human involvement. One possible approach for this could be to amend the Indian Copyright Act itself to accommodate for co-authorship of works generated by computers where substantial human labour is involved in those works being produced.

#### *Rights Tailored for AI*

To clear up ambiguity over ownership, the law could create a new category of intellectual property covering works generatively produced by an AI. Licensing provisions and revenue-sharing models may also be included in this new framework.

#### *Enhancing Transparency*

We need to be holding both developers and users accountable for their work above a certain threshold of automation or impact, and requiring people to disclose whether they are the developer or user of AI-generated works would help with accountability. For example, identifying outputs as "AI-assisted" or "human-AI collaboration," may help.

#### **Role of Contracts**

Contracts have proven essential during disputes over ownership. Clear explicit agreements between developers, users, and commissioning bodies can make clear the ownership rights; licensing terms; and revenue-sharing arrangements. A graphic designer, for instance, could proudly declare in a contract with an AI platform that the designer owns over any output generated through the AI tool.

#### **Global Harmonization**

The global aspect of AI-generated works calls for harmonized parameters regarding authorship and ownership. International bodies such as WIPO needs to lay down guidelines on co-writing in human-AI partnerships and cross-border licensing of AI-generated works.

#### **Policy Proposals and the Way Ahead**

Debates on the consequences of the rapid advances in Artificial Intelligence (AI) for Copyright Law have reached new highs. It also notes that existing frameworks, meant for the human creative process, struggle to grapple with the complexities of works generated by an AI system. This part highlights

actionable policy proposals and recommendations to tackle these issues, including reforming existing law, building new legal environments, as well as promoting international harmonization.

#### **Revising the Current Structure of Copyright**

The most pragmatic among these would be to go back to the drawing board on copyright laws (what already exists and allowing for AI-generated works). These types of changes would enable legal systems to incorporate AI into the creative process without sacrificing fundamental principles of originality and authorship.

#### ***Broadening the Reach of Authorship***

At this moment, copyright register can only authorise human beings. To clarify these uncertainties, policymakers can redefine authorship as a human-AI partnership. The Indian Copyright Act, 1957(Copyright Act) can then be amended to include provisions that attribute co-authorship to human inputs where they play a material part in influencing the output of AI.

#### ***Establishing Unambiguous Standards of Originality***

The originality requirement in AI outputs requires clarity around what creativity means and the threshold for AI-generated works that can be protected by copyright. The idea is to make it a "transformative use" that passes the touchstone for whether something adds value or has a different purpose than its source material.

#### ***Imparting AI-Human Co-Creations Recognition***

For example, amendments could spell out co-authorship as a possibility in human-AI collaborations, where development of the AI gives joint rights to developers and users or other contributors. For instance, a photographer who employs AI to make improvements to photos may be able to claim co-authorship with the creator of the AI tool.

#### ***Establishment of New Legal Frameworks***

Alternatively, policymakers might create a new form of IP for those works. This framework called "Artificial Intelligence Rights" would deal with ownership, authorship and the duration of protection in a way that is specific to works produced by AI.

#### ***Core Attributes of Rights for AI***

To qualify as being produced by an AI, the works need to be original and have relied heavily on machine learning processes. And as for ownership

that would depend on contract terms or contributions from developers, users or those commissioning the works. AI-produced works would have less protection, e.g., 20 years instead of the creator's life + 60 years typical under copyright and better innovation-access equilibrium. AI-specific rights could open up avenues for licensing models to allow partial ownership by both developers and users. Revenue-sharing frameworks would align the incentives of all stakeholders and avoid monopolistic control.

#### **Global Harmonization**

Because AI-generated works have worldwide impact, we need standards for authorship and ownership to be uniform. This means that international cooperation is needed to deal with certain questions of copyright related to AI in a uniform manner.

#### ***Role of WIPO and the Berne Convention***

International frameworks could be developed by global organizations such as the World Intellectual Property Organization (WIPO) that are already experienced in this area to implement parameters around works generated by AI, similar to the Berne Convention. WIPO may establish standards for co-authorship of human-AI works, or suggest new durations of protection appropriate to AI-generated outputs.

#### ***Cross-border Licensing Framework***

Simplified licensing regimes for works of authorship in AI can then facilitate trade and co-operation across borders. Such frameworks could tackle fair compensation, access by the public, and cross-border enforcement.

#### ***Ethical and Practical Considerations***

Policymakers will need to take such questions into consideration when drafting or considering regulations regarding AI-generated works, which can lead to unintended inequitable outcomes.

#### ***Finding a Balance between Innovation and Incentives***

Those who create, deserves an incentive, and copyright law is meant to provide one. The justification behind granting of copyright is nothing but rewarding the creators of original works with incentives so that more and more original works are infused into the existing body of knowledge. However, machines don't need any incentive and granting copyrights for AI-generated works could actually undermine this concept. Therefore, the

policymakers must balance: human incentives with the public domain deposit by making sure developers and users are compensated fairly and at the same time by ensuring that AI-Generated works are placed in the public domain after a certain duration of time thereby promoting knowledge-sharing.

#### *Addressing Bias in AI Systems*

AI systems are no less biased than the data upon which they were trained. As the risk of discriminatory outputs is very high, using diverse and inclusive datasets can mitigate this.<sup>30</sup> For example, policymakers could require AI transparency in which the sources of training data and algorithms would need to be disclosed.

#### **Promoting Industry-led Initiatives**

Legal reforms must be complemented by the private sector. While legislative processes will eventually catch up to the issue, industry best practices allow for immediate solutions.

#### *Standardizing Contracts*

Use standard contracts between developers, users, and commissioning body so there is clarity on how ownership should be divided (both material and design) along with licensing terms (also specify whether for commercial use or not) and revenue sharing, if applicable. For instance, a contract between a developer and graphic designer may state that the designer does not retain ownership over AI-assisted works.

#### *Open-Source Frameworks*

Open-sourcing AI-generated works offers a balance between free availability to foster innovation while ensuring developers retain some rights over their creations. These could consist of attribution requirements to indicate human and AI contribution.<sup>31</sup>

#### *Public Awareness Campaign*

Education gives insights into the complexities of materials created by AI in order for communities to be stakeholders: developers, users and policymakers.

#### *Training and Workshops*

Legal practitioners will have to adapt to meet the challenges presented by AI and Copyright Law—workshops concerning these areas of public policy can prepare these practitioners. For example, seminars might examine class action scenarios reviewing AI generated works such as Edmond de Belamy<sup>11</sup> and their applicable legal treatment.

#### *Public Engagement*

Diversity in stakeholders involved in policy decisions leads to inclusivity and equity. Public consultations, for example, could be held to take the views of creators, developers and consumer groups.

#### **Conclusion**

The incorporation of AI in creative processes has disrupted the conventional understanding of originality, authorship and ownership under copyright law. Indeed, although AI has opened up many new doors for producing previously unimaginable and varied works, it has also revealed deep deficiencies in existing legal regimes. To summarise, some pending questions and a view of what the future could look like among Copyright Law in an AI dominated environment.

Some AI systems — especially the generative models that underpin systems such as GPT-4 and DALL-E — generate outputs seemingly sufficient for copyright protection's originality threshold. However, there exists a debate on whether these outputs are actually good reflection of true creativity, or if they just re-hash other data in new combinations. Since the current copyright law presumes human authorship, it can seem quite challenging to fit a wholly AI-written work into this system. Even though courts and policymakers have begun wrestling with these issues, we still lack definitions of ownership and authorship capable of dealing with the sophistication of AI creatorship.

The treatment of AI-Generated works differs by jurisdiction. Japan and Singapore, for example, have started amending laws to include computer-generated works; others — the US and the European Union — still act in a "human-first" manner.

The right to have rights is a well-known legal and ethical notion — but, as others have pointed out, the reason copyright exists is ostensibly to encourage human creatives. Policymakers should ask whether the recognition of AI created works advances the core purposes of intellectual property protection. Although, much of what has been written springs from a more nuanced understanding of AI's place in creative processes, several important questions still persist and not answered yet, such as:

- (i) What is considered a meaningful human input? How much human input is needed to justify authorship in the case of AI generated works? There needs to be clear standards for human

literacy, co-authorship from the courts and lawmakers.

- (ii) Is there a legal personality for AI? While recognition of AI as a creator would fill the authorship void, its implications open many difficult questions in regard to accountability, liability, and ethics.
- (iii) How to harmonise global standards? Different countries have different rules, and without international guidelines, creators, developers and users facing uncertainty in all of this.

The following are the recommendations to fill the gaps identified in this paper:

- (i) Amending Copyright Laws: Legislators should revise existing copyright statutes to recognize human-AI collaborations. For instance, the Indian Copyright Act, 1957, could define authorship to include contributions made by both humans and AI.
- (ii) Setting clear expectations about what constitutes originality: To preserve originality in copyright, courts ought to set high thresholds that recognize the transformative nature of AI and allow copyright only for works that exhibit a measure of creativity.
- (iii) New set of rights targeting AI: Introduction of a separate form of intellectual property called "Artificial Intelligence Rights" would eliminate uncertainties about ownership rights and establish clearer rules for the management of works generated by AI.
- (iv) Developing Licensing Models: Licensing tools could distribute rights fairly across developers, users, and commissioning parties. Royalties from works produced by AI may be split between groups of people according to agreed-upon contracts.
- (v) Harmonizing global standards: International organisations, for instance WIPO, should take the lead in developing global standards on works created by AI. These requirements may include, for example, different conceptions of authorship in human-AI collaborations, cross-border use licensing frameworks, standards of ethics for AI-generated contents, and amending the Berne Convention. This would strike a better balance between national sovereignty and effective international cooperation by updating the Berne Convention to include such provisions regarding works created by AI.

### Balancing Innovation and Fairness

Policymakers will need to walk a fine line between encouraging innovation and preserving human creativity. However, fairly rewarding creators and developers are ensuring that human contributions in works generated by AI are recognized. Collaborative authoring frameworks and revenue-sharing models can actually promote collaboration without undermining the very purpose of copyright.<sup>32</sup> A mechanism that would strike a balance between these private and social returns would be to put AI-generated works into the public domain after a set period of time. This method reflects the same limited monopoly principle in Patent Law, which seeks to promote innovation and information dissemination.

The transparency of AI systems, as well as accountability when these systems are used to create works or make decisions, bolsters public confidence in them. Policymakers may require auditing of training datasets and algorithms to reduce the potential for bias.<sup>30</sup> The shape of things ahead will be determined by technological developments and changing social pressure.

Future developments in AI are likely going to shape the way we define art, with machine meeting human creativity. The effects of AI are not just limited to Copyright Law. They also affect patents, trademarks, and trade secrets. These intersections necessitate holistic adaptations of legal frameworks, including the inclusion of civil rights provisions that serve and protect migrant communities. As AI continues to infiltrate society, it will reshape understandings of creativity and authorship and potentially upend existing valuation hierarchies.

It will not be easy, but balancing the innovations of AI and Copyright Law is important. A proactive and inclusive strategy would help policymakers ensure that legal frameworks remain relevant in the age of artificial intelligence. These initiatives will safeguard human creators' rights, whilst simultaneously enabling a culture of collaboration, innovation and ethical advancement.

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