Creativity and Copyright in the Age of AI

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Introduction

The rise of artificial intelligence (AI) in content creation has revolutionized media, literature, and art production, redefining the boundaries of creativity and innovation. Generative AI models can synthesize text, images, and other forms of media with unprecedented sophistication, raising fundamental questions about authorship and originality. These technological advancements have democratized access to creative tools but also brought complex challenges concerning copyright, attribution, and compensation for creators whose works train these systems. Traditional copyright frameworks, built to address clear ownership and direct copying, struggle to accommodate AI-generated content. Copyright assumes a direct creator-work relationship, but this notion falters when AI models are trained on vast datasets comprising billions of pre-existing works. This makes it difficult to trace AI-generated content back to individual contributors or establish fair revenue-sharing models. According to Spindler (2019), two key legal issues emerge: first, the copyrightability and authorship of AI-generated works; and second, whether AI systems and their training datasets can themselves be protected under existing copyright laws. Creative Commons has emerged as a vital player in navigating these challenges, offering licensing solutions that promote open sharing while respecting creators' rights. CC licenses enable creators to control how their works are used, but they operate within the constraints of existing copyright exceptions and limitations. This is particularly relevant to AI, as the use of copyrighted works for training models may, in many jurisdictions, be considered fair use or fall under text and data mining exceptions. However, the application of these exceptions often depends on the specific use case and jurisdiction. This paper will analyze the limitations of current copyright laws and the ethical dilemmas surrounding generative AI. By examining case studies of legal and ethical standards, this paper will attempt to propose pathways for equitable AI integration into the creative

ecosystem, as gathered form literature. This is to ensure that technological advancement benefit society while still respecting human contributions.

Challenges of AI in Copyright and Creative Ownership

The intersection of AI and copyright law presents significant challenges for existing legal frameworks. Spindler (2019) observes that the unpredictable nature of AI's creative process complicates the human contribution in AI-generated works. Similarly, Lucci (2023) raises questions about ownership, debating whether it belongs to the user providing prompts or the developers behind the AI. Also, traditional copyright laws, as noted by Apin and Pasqualetto (2019), are rooted in the concept of human authorship and therefore struggle to address these scenarios. They explain that "the more autonomous AI systems become, the harder it will be to identify a human being responsible for the arrangements for the creation of the end-work higher up the chain." (p. 16) Overall, we can conclude that there is a common challenge in determining ownership with the existing legal frameworks that are based on human authorship itself.

The requirement for originality also comes under scrutiny, as copyright traditionally mandates that works must be original. AI-generated content blurs the line between human and machine creativity, making this standard difficult to uphold. Apin and Pasqualetto (2019) argue that defining originality in AI outputs poses a significant challenge. Both Spindler (2019) and Lucci (2023) emphasize that existing laws may not adequately protect AI-generated content, highlighting an urgent need for reform or the development of new legal frameworks. Another recurrent issue in literature is the use of copyrighted material for training data, which further complicates matters. Lucci (2023) and Schaffer et al. (2015) raise concerns about whether using such data constitutes fair use or infringement. This question impacts the protection of training data**,** where Spindler

(2019) points out the flaw of the current EU copyright law, stating that “under the current legal framework, it is not AI as a concept or as an algorithm that is protected, rather it is AI as a code on the grounds of the EU Software Directive. Moreover, data which is used for training an AI is not protected as such.” (p. 1050) Therefore, when creating a database, the code behind it is more protected than the data that feeds it. Naturally, this calls for the need to form a new legal framework. Schaffer et al. (2015) anticipated such challenges and proposed that teaching AI systems to distinguish between copyright and infringement is essential potentially requiring a new form of "computational copyright law". All these challenges pose ethical problems, where recognizing AI as a creator could impact the human creators and raise broader questions about the role of creativity in human identity. Gaon (2021) raises convincing arguments that if AI is to be recognized as a creator, legal rights should be applied to it, which then would cause significant implications. First, as Gaon (2021) points out, if AI were to be recognized as a legal person, it could be held accountable for its actions, like how corporations are treated. This raises questions about liability in cases where AI causes harm or engages in illegal activities. The legal system would need to determine how to assign responsibility and whether AI can be punished or required to compensate victims. Then, the author discusses the moral and ethical consideration of granting AI rights, which may prompt society to reconsider the nature of rights and personhood, potentially leading to a broader recognition of rights for other non-human entities, such as animals or ecosystems. This could shift societal values and legal norms regarding the treatment of non-human entities There is also the issue of influencing labor markets and current employment laws, if AI is considered a legal person, there may be debates about their role in the workforce, his issue is not only on replacing human workers, but the fact that whether AI should also receive compensation or benefits, which could disrupt the traditional employment structure as we know it.

The intersection of AI and copyright law highlights profound legal, ethical, and societal challenges that demand urgent attention. As AI continues to evolve, redefining creativity and authorship, the gaps in existing legal frameworks highlight the need for new solutions. Whether through new legislation, ethical guidelines, or "computational copyright law," addressing these issues is essential to balance the rights of human creators, the responsibilities of AI systems, and the broader implications for society.

Current International Stance on AI and Copyright

The relationship between AI and copyright law presents a complex challenge for international legal systems. While current copyright frameworks largely emphasize human authorship and originality, AI-generated content blurs these boundaries, raising questions about authorship, ownership, and the extent of protection. Efforts to address these issues vary across jurisdictions, following are current laws surrounding the matter:

International

Under the Berne Convention, protection extends to original literary and artistic works. It establishes that works must be the author's own intellectual creation, which raises questions about AI-generated content. “It provides creators such as authors, musicians, poets, painters etc. with the means to control how their works are used, by whom, and on what terms.” (WIPO, n.d.)

European Union (EU)

EU copyright law requires that works be original, defined as the "author's own intellectual creation." This standard has been harmonized for specific subject matters, including computer programs, photographs, and databases. However, the AI Act states transparency requirements for

General-Purpose AI (GPAI) systems, including several recitals including which is Recital 107 that specified the obligates GPAI providers to publicly available detailed summaries of training data used for their models. This measure ensures accountability and supports copyright enforcement, enabling rightsholders to effectively exercise their rights. The information should be comprehensive enough to include data from both public and private sources. The AI Office is tasked with developing a standardized template for these summaries to maintain clarity and simplicity. While Recital 108 assigns the responsibility of compliance monitoring to the AI Office, which will oversee the transparency obligations, it will not conduct individual copyright compliance checks for each data element. Additionally, Recital 109, introduces exceptions for text and data mining, especially benefiting SMEs and startups by promoting innovation while protecting rightsholder interests. It ensures the facilitation of non-commercial research activities while ensuring that rightsholders' interests are adequately protected." (KEA, n.d.). However, Recital 105 states that the use of copyrighted content for training AI models requires rightsholder authorization, unless exceptions apply. It ties the provisions to Directive (EU) 2019/790, which permits reproductions for text and data mining under specific conditions and allows rightsholders to "opt out" unless for scientific research.

United States

In the U.S., the "work made for hire" doctrine allows for legal entities to be considered authors in certain situations (Apin and Pasqualetto, 2019). In a recent US District Court case for the district of Columbia, where Stephen Thaler, the plaintiff, generated an AI art and proceeded to register it for copyright. His argument was "The GenAI Content was "autonomously created by a computer algorithm running on a machine." Thaler claimed ownership of the copyright in the GenAI Content as a "work-made-for-hire" on the basis that he created the AI tool that had

autonomously generated the GenAI Content." (Cassels, 2023, para. 4). The court concluded "unequivocally that 'United States copyright law protects only works of human creation.' It stated that, although copyright is designed to adapt with the times and apply to works created with or involving new forms of technology, 'human creativity is the *sine qua non* at the core of copyrightability.'" (Cassels, 2023, para. 7) Therefore, the traditional view of authorship is centered around human creators, which complicates the status of AI-generated works in the US.

United Kingdom

Similarly, the UK law deals with Copyright from a human authorship. The Copyright, Designs and Patents Act 1988 (CDPA) outlines the currents laws surrounding copyright in all its human forms but does not specifically address AI-generated works. Searching with "Artificial Intelligence" or "AI" in the CPDA database did not generate any results. Therefore, in a statement from the UK government, it is stated that "The government is now working with users and rightsholders on a code of practice on copyright and AI. The code of practice aims to make licences for data mining more available. It will help to overcome barriers that AI firms and users currently face and ensure there are protections for rights holders." (UK Government, 2023, para. 2)

Canada

Searching the database of WIPO concerning "Artificial Intelligence and Intellectual Property Strategy Clearing House", where WIPO collates and publishes the main government instruments of relevance to AI and IP with the aid of the Member States' input. The House of Commons Standing Committee on Industry, Science and Technology (INDU) released in a latest report containing 36 recommendations, one of which directly relates to AI: "Recommendation 14: That the Government of Canada consider amending the Copyright Act or introducing other legislation to provide clarity around the ownership of a computer-generated work." (WIPO, n.d.)

Most of these international laws concerning AI and copyright are still working towards a creating a framework that approaches the matter. This emphasizes the need for ongoing legal discourse and potential reform to address the unique challenges posed by AI.

Solutions and Future Directions

The discussion surrounding AI and copyright law presents complex challenges, particularly when considering how to adapt traditional frameworks to accommodate the creative contributions of AI systems. Scholars propose a variety of solutions to address these challenges, each aiming to strike a balance between protecting intellectual property and encouraging innovation in the field of AI. Overall, there is the call towards balancing the rights of creators with the need to encourage innovation**.** Scholars like Gaon (2021) and Lucci (2023) advocate for protecting the intellectual property rights of creators, while ensuring that AI development and usage are not unduly hindered. This includes exploring new models and incentives, such as considering copyright for the AI software itself as well as protections for the databases and data used in training AI systems (Aplin & Pasqualetto, 2019). This would encourage innovation while still safeguarding the interests of copyright holders. Before we address this, there is first the need to come up with a clear definition of authorship as well as ownership. This is a critical issue as traditional concepts of authorship do not easily apply to works produced with significant AI involvement. The need for a clear framework to assign ownership and authorship rights, especially in the case of AI, is widely shared across the literature. There, indeed, should be human involvement in the creative process, as Hugenholtz & Quintais (2021) focus on the necessity of human intellectual effort in determining copyright eligibility for AI-assisted works. This idea of human involvement as a core criterion for copyright eligibility is echoed across literature. To account for this, Kindle Direct Publishing in their Content Guidelines suggest a distinction between AI generated content and AI assisted

content. The former being “text, images, or translations created by an AI-based tool. If you used an AI-based tool to create the actual content (whether text, images, or translations), it is considered "AI-generated," even if you applied substantial edits afterwards.”, while the latter is used to “edit, refine, error-check, or otherwise improve that content (whether text or images), then it is considered "AI-assisted" and not “AI-generated.” (Amazon KDP, n.d.) this distinction could help define the degree of involvement of the human creator in the creative process. Additionally, Lucci (2023) argues that while frameworks addressing the use of AI are still evolving, they should avoid being overly restrictive, as this could hinder developers from effectively utilizing training data and stifle innovation in AI technology. The fear of breaching copyright laws might discourage developers from pursuing the creation of new AI systems.

Noting from the proposed solution accounted for in literature, there could be a solution to address the challenges that could satisfy all the parties involved. AI-generated content can be assessed based on the level of human involvement. If a work contains significant human input in the creative process, where AI is a tool rather the primary created (what KDP calls AI-assisted) it should be eligible for full protection under CC. Moreover, in cases where, for instance, a work is generated predominantly using AI but with the guidance of human customization, that could be offered limited protection, the case of text to image generated content. As for the works that are created solely relying on AI without substantial human input, this should not be offered protection and can hold a public domain status or “no rights reserved”, this accounted for as CCO, “for those works that do not involve a significant degree of human creativity, to clarify the intellectual property status of the work and to ensure the public domain grows and thrives.” (Creative Commons, 2023) This approach could enhance one of the biggest challenges, which is to appoint authorship. Creative Commons is still trying to come up with a solution to address this issue and create a

balance between AI development and copyright law, but nothing substantial is decided, at least for now, but we maybe could see another license introduced to the realm, a CC-AI one.

Conclusion

The intersection of AI technology and copyright law presents deep and multifaceted challenges that existing legal structures find difficult to address effectively. As AI systems become increasingly autonomous and capable of producing complex creative works, traditional concepts of authorship and ownership face unprecedented scrutiny. The challenges mentioned in this paper highlight important limitations of current legal frameworks, which are largely designed with human creators in mind. The ambiguity surrounding the attribution of authorship, the originality requirement, and the protection of training data adds layers of complexity that demand urgent attention. International efforts, from the EU's transparency requirements for general-purpose AI systems to the U.S. District Court's stance on human creativity as a cornerstone of copyrightability, emphasize a fragmented approach. While these measures mark a step towards recognizing the impact of AI on copyright law, they often fail to offer comprehensive solutions. The UK's ongoing development of a code of practice for data mining licenses and Canada's recommendation to amend its Copyright Act point to a growing recognition of the problem yet fall short of providing a clear path forward. To bridge these gaps, a unified approach that incorporates innovative and flexible frameworks is essential. Solutions proposed by scholars include assessing AI-generated content based on the degree of human involvement and distinguishing between AI-generated and AI-assisted works. These different perspectives could lead to a system where AI-assisted creations are recognized for their originality, while purely AI-generated works without human oversight remain in the public domain or are designated as "no rights reserved."

The idea of introducing new forms of copyright, such as a Creative Commons-like license tailored for AI creations, could strike a balance between encouraging innovation and protecting creators' rights. This would ensure that AI developers are not deterred by legal uncertainties, allowing the field to thrive without stifling the creative industry. However, such developments must be approached with caution to prevent overly protective measures that could hinder technological growth. Ultimately, the future of copyright law in the age of AI will require a dynamic, cooperative effort involving the input of different legislators, legal scholars, technologists, and creative professionals. Establishing clear definitions of authorship, ensuring transparency in the use of training data, and creating adaptable legal instruments are all crucial steps in coming up with a legal environment that supports both innovation and the rights of human creators. This comprehensive approach will ensure that copyright laws evolve in tandem with technological advancements, building a balanced ecosystem where AI acts as a tool to augment human creativity rather than undermine it.

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Use of AI

Tool used: ChatGPT

Prompts:

- Used to correct grammatical errors and reduce redundancy in wording.
- Used to generate titles.
- Used to offer points of commonalities between authors.
- Used to organize draft ideas gathered from literature into a coherent, understandable format.

Critical evaluation:

The tool enhanced the quality of my writing. I mainly jot down or highlight ideas when reading passages, to formulate them into coherent sentences take time, so I fed my ideas into the tool, and it generated a coherent structure that I had to revise later. The task then becomes verifying if my ideas are still there and not replaced by the tool.