Ownership and Copyright Challenges in AI-Generated Content

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Abstract

This paper explores the transformative effects of AI in the field of creative expression. By examining its impact on music, visual arts, and literature, this paper highlights the unprecedented capabilities of AI in generating creative works. This paradigm shift prompts critical discussions on creativity, originality, and human agency. Furthermore, this paper investigates the copyright law's inadequacy in handling AI-generated content and the resulting need for an expanded legal framework. Through an examination of varied perspectives, through surveys, on AI's role in creativity, opinions diverge on matters of ownership, transparency, and compensation. This signals the complex dynamics between human creators and AI systems. Significant lawsuits involving AI companies further underline the urgency for legal reform. Whether AI should be recognized as a co-contributor in the creative process and the moral implications that come with this recognition are also discussed. This paper concludes with an urgent call for a comprehensive legal framework that acknowledges AI's creative capacities while considering transparency, accountability, and ethical standards.

1 Introduction

In today's rapidly evolving technological landscape, Artificial Intelligence (AI) has emerged as a transformative force, reshaping various aspects of our lives, including the realm of creative expression. Across diverse fields such as music, visual art, literature, and beyond, AI is demonstrating its remarkable ability to generate novel and compelling works that challenge traditional notions of creativity and authorship. Consider music, for example. AI algorithms can now compose melodies, harmonies, and entire pieces, drawing inspiration from vast repositories of musical data. These algorithms analyze patterns, styles, and structures, producing compositions that rival those crafted by human composers. The implications for the music industry are profound, as AI-generated music raises questions about human intentionality and creative authenticity.

Similarly, in the visual arts, AI-powered tools are disrupting traditional creative processes. From generating paintings and drawings to producing digital artworks, AI algorithms are pushing the boundaries of artistic exploration. These AI-generated artworks exhibit astonishing complexity and aesthetic appeal, blurring the lines between human and machine creativity, reigniting debates surrounding artistic authorship and human input.

Literature and storytelling are also undergoing transformation in the era of AI. AI systems can now generate narratives, poems, and other written works by analyzing vast corpora of text and learning linguistic patterns. The outputs produced by these systems are often coherent and engaging, raising questions about storytelling and human creativity.

In essence, AI's role in generating creative works represents a paradigm shift in how we perceive and engage with art. While AI offers opportunities for innovation, it also presents challenges to established norms. As we navigate this landscape, it is essential

to examine the ethical, legal, and philosophical implications of AI-generated content, ensuring that we uphold principles of creativity, originality, and human agency. [1]

2 AI and Artistic Creativity: Current Landscape

The debate over the authorship of AI-generated works lies at the heart of discussions on AI and copyright. Scholars argue whether AI-generated works possess the necessary human creativity for copyright protection. While AI systems can produce content exhibiting complexity and originality, the absence of direct human involvement raises questions about traditional copyright paradigms.

Copyright law, designed to protect the creative efforts of individuals, faces challenges in the context of AI-generated content. The growing integration of AI into the creative process sparks debates about extending copyright protection. Proponents argue for legal safeguarding, citing the creativity and innovation of AI-generated creations, while skeptics contend that AI lacks genuine creativity due to the absence of human input. Currently, AI-generated works exist in a legal gray area, as the existing copyright framework does not encompass them.

2.1 Insights on Opinions on AIgenerated Works and Copyright

In "Blurring the Lines: How AI is Redefining Artistic Ownership and Copyright" [2] the authors collected data from various studies, revealing a multifaceted discourse reflecting diverse perspectives from professionals in both creative and legal fields. Through quantitative and qualitative surveys, the study aimed to gain comprehensive insights into perceptions surrounding AI-generated content and its eligibility for copyright protection.

The quantitative survey, involving 100 participants from various backgrounds (54 creatives, 9 legal, 37 other), revealed nuanced opinions on the nature of AI-generated works and their relationship to copyright law. More than 50% agreed that AI can create

works comparable to those crafted by humans. However, a distinction was made between human and AIcreated works, with a majority indicating that such works should be considered human creations.

Regarding copyright law, a majority agreed that images or works created by AI should be protected by copyright. Additionally, many believed that the creator, whether human or AI, should hold the copyright and have the right to use it for commercial purposes. However, concerns were raised about potential copyright infringement by AI-generated works, highlighting the need for clear legal frameworks. The qualitative survey provided further insights, with legal professionals emphasizing challenges in bestowing copyright upon AI-generated works and advocating for revisions to copyright law. Creative professionals expressed concerns about the potential impact of AIgenerated art on their professions and stressed the need for regulatory laws to govern AI and protect artists' interests.

2.2 Perspectives on Ownership

In a different study from "Foregrounding Artists Opinions: A Survey Study on Transparency, Ownership, and Fairness in AI generative Art" [3]. The survey study conducted on artists (N=459) over the age of 18 provides insights into their perspectives on various aspects of AI-generated art, particularly focusing on transparency, ownership, and fairness.

The survey results reveal that a significant majority (80.17%) of participants advocate for transparency in AI model creation, emphasizing the need for model creators to disclose detailed information about the art and images used to train their AI models. Additionally, a substantial portion (61.87%) of artists perceive AI models as a threat to art workers, reflecting apprehensions about the potential impact of AI on the traditional art landscape.

When considering ownership of AI-generated artwork produced in a particular artist's style, participants exhibit diverse opinions. A minority (26.80%) believe that ownership should reside with AI model creators, while a substantial portion (41.39%) advocate for artists whose style is represented in the output. This divergence underscores the complexity of

defining ownership in the context of AI-generated art.

2.3 Compensation

Another survey delves into artists' perspectives on fair compensation for the use of their artwork to train AI models. Remarkably, over half (50.97%) of respondents express a lack of need for direct compensation but emphasize concerns about who profits from their artwork. A prevalent sentiment among participants is the opposition to for-profit companies benefiting from their art without equitable compensation. Some artists (36.56%) express openness to various forms of compensation, while others (11.18%) express discomfort with the provided options.

3 Legal and Moral Implications

The emergence of AI-powered platforms like Chat-GPT has raised significant questions regarding copyright and intellectual property rights. ChatGPT's ability to generate high-quality, contextually relevant content has transformed content creation processes, but it also presents complex challenges in the realm of copyright law.[4]

Determining the authorship and ownership of content generated by ChatGPT poses intricate legal questions. Traditional copyright laws, designed for human creators, may not adequately address the unique nature of AI-generated content. Clear guidelines are needed to specify ownership rights and ensure fair compensation for human creators collaborating with AI systems like ChatGPT.

3.1 Legal Frameworks and International Standards

Existing copyright laws, such as the Berne Convention and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), establish minimum standards for copyright protection but may not fully encompass AI-generated content. The United States Copyright Office's stance on AI-generated works reflects the current legal landscape, where

copyright protection is limited to human-authored creations.

However, international efforts to regulate AI-generated content, such as the EU's AI Act, highlight the need for comprehensive legal frameworks that address evolving technological landscapes.

3.2 Adaptation to New Media

The Copyright Act of 1976 serves as the foundation of copyright law, but its applicability to AI-generated content raises questions about its adaptability to new media formats. As AI technologies continue to evolve, there is a need for legislative reforms to ensure that copyright law remains relevant and effective in addressing emerging challenges.

3.3 Enforcement and Protection

The Digital Millennium Copyright Act (DMCA) of 1998 represents a milestone in modernizing copyright law for the digital age. However, its effectiveness in addressing the unique challenges posed by AI-generated content remains uncertain. Strengthening enforcement mechanisms and implementing legal measures to protect online copyrighted materials are essential steps in safeguarding intellectual property rights in the era of AI.

3.4 Clarification of Authorship

The question of authorship in AI-generated content necessitates legal clarification to delineate the respective contributions of human creators and AI systems. Clear guidelines are needed to determine when AI systems like ChatGPT should be recognized as coauthors or collaborators in the creative process.

3.5 Transparency and Accountability

Ensuring transparency and accountability in AIgenerated content creation is crucial to address concerns related to bias, accuracy, and ethical considerations. Legal frameworks should mandate disclosure requirements for AI systems like ChatGPT, outlining the sources of training data and mechanisms for addressing biases and inaccuracies.

3.6 Moral Implications

Society must develop ethical guidelines for the responsible use of AI in content creation, emphasizing transparency, fairness, and respect for intellectual property rights. Promoting collaboration between AI systems and human creators can mitigate ethical concerns and ensure alignment with cultural values and social norms. Human oversight is essential to uphold ethical standards and address issues of bias, fairness, and accuracy in AI-generated content.

4 Case Studies

In examining the intersection of AI-generated content and copyright law, several notable lawsuits shed light on the complex legal landscape surrounding this emerging technology.[5]

4.1 Getty Images, INC. v. Stability AI, INC.

Getty Images alleges that Stability AI, the company behind the popular image generation model Stable Diffusion, copied over 12 million images and associated metadata without permission or compensation. This unauthorized use has resulted in Stability AI becoming a direct competitor to Getty Images in the creative imagery market. Notably, Stability AI's generated images often contain a modified version of the Getty Images watermark, tarnishing the reputation of Getty Images. While the generated content may not fit into the category of "substantial similarity," the use of the trademarked watermark constitutes a violation. Getty Images is suing Stability AI for \$1.8 trillion, highlighting the significant financial impact of copyright infringement in the AI-generated content space.

4.2 Andersen v. Stability AI Ltd.

In another case, Sarah Andersen, Kelly McKernan, and Karla Ortiz filed a class action lawsuit against Stable Diffusion, Midjourney, and Deviant Art, alleging copyright infringement. They claim that these models used their works as training data without authorization and that generating images in their style violated their rights. However, some claims made by the plaintiffs are factually inaccurate, such as describing Stable Diffusion as "merely a complex collage tool." The case raises questions about the copyrightability of artistic styles, as demonstrated by the precedent set in Dr. Seuss Enterprises L.P. v. ComicMix LLC. While generative AI art may replicate certain styles, copyright protection for artistic styles is limited. Additionally, the plaintiffs argue that machine learning significantly differs from human learning, but it's important to recognize the inspiration drawn from human neuroscience in the development of deep neural networks.

4.3 Doe v. Github, INC.

Lastly, a group of anonymous programmers filed a class action lawsuit against Microsoft, Github, and OpenAI, alleging a violation of Section 1202 of the DMCA for unauthorized use of code to develop the AI machines, Codex and Copilot. The plaintiffs claim that these companies did not comply with open source licensing terms. Microsoft and OpenAI have responded by noting that the plaintiffs did not argue specific injuries or particularly copyrighted works. However, GitHub announced plans to credit code produced by Copilot, aiming to address legal concerns. The case raises broader concerns about the future of open source code, as unauthorized use could deter contributors from sharing their work. While AI technology presents incredible opportunities, it's crucial to ensure that training data is obtained legally to benefit all contributors and maintain the integrity of open source initiatives.

5 Conclusion

AI's role in generating creative works represents a critical shift in the way we perceive and engage with art. It offers opportunities for innovation and challenges established norms. With copyright laws tailored for human creators, AI-generated content brings about significant legal and moral dilemmas. These revolve around issues of originality, authorship, compensation, and the distinct separation between human and machine creativity. Current copyright laws, such as the Berne Convention and TRIPS partially cover these issues but there is a clear necessity for a more comprehensive framework. This need is broadly recognized as AI and its generated content continue to evolve at a rapid pace. Such a framework should ensure transparency and accountability in AI content creation, safeguarding intellectual property rights while upholding ethical standards. Furthermore, prominent lawsuits against major AI companies highlight the urgency of reform. The unique nature of AI-generated content demands a revised definition of creativity and authorship that respects the contributions of both artists and AI. However, the result of these lawsuits remains to be seen, it is evident that the coding and creative communities are demanding significant legal and ethical changes.

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