Ethical and Legal Frameworks for AI-Generated Art:
Balancing Innovation and Intellectual Property Rights
Morning3

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1. Motivation

Our project is motivated by the potential of AI to democratize creativity. In our class exercise, we explored using AI to generate images, demonstrating how this technology empowers individuals with varying artistic abilities to create impressive artwork. Regardless of their proficiency in traditional art, everyone can easily generate art with AI, making artistic expression accessible to all.

Recent discussions about AI-generated content, such as the song "Heart on My Sleeve," raise important questions about copyright infringement. This AI-created song mimics the voices and styles of popular artists like Drake and The Weeknd, prompting inquiries into whether it violates existing copyrights. As we delve into these considerations, our project aims to address the potential legal implications of AI-generated artwork, focusing on issues related to copyright.

2. Related Issues

Several related issues arise in this context. First, there is the matter of data use and consent. AI systems require large datasets for training, which often include personal data and existing artworks. Ensuring that AI creation does not infringe on others' intellectual property is crucial. This involves establishing clear consent mechanisms and legal frameworks to protect the rights of original content creators whose work is used in AI training datasets. Moreover, we must evaluate the economic impact on artists. The proliferation of AI-generated art might significantly affect the livelihoods of human artists. An influx of AI-generated art could saturate the market, potentially devaluing both AI-generated and human-created works. This economic pressure could lead to reduced income for traditional artists, challenging the sustainability of their careers. Lastly, a critical concern is the potential loss of creativity. Relying heavily on AI for art creation could lead to a decline in human creativity and originality. If we become dependent on AI to generate ideas and execute artistic projects, we may lose the ability to think creatively and develop unique, personal expressions of art. Licensing models and copyright ownership are also critical considerations. Should we grant AI artwork copyright? AI-generated artworks can be licensed similarly to traditional artworks, but the unique nature of AI as a non-human creator necessitates new approaches. Licensing agreements should clearly define the rights and responsibilities of both parties, including who holds the copyright and under what conditions the work can be used. This clarity is vital to protect the interests of all stakeholders involved in the creation and distribution of AI-generated art.

3. Consequential vs. Deontological

Approaching from different perspectives, we can come up with two different standpoints: one is granting copyright to AI-generated art, and the other is denying copyright to AI-generated artwork.

- **Consequential:** Granting copyrights to AI-generated art could incentivize investment in AI technologies and spur innovation. Companies and individuals would be more willing to develop advanced AI systems if they could secure exclusive rights and potential profits from their creations. This would create new economic opportunities by fostering a market for AI-generated works and benefiting technology and intellectual property industries. Furthermore, copyright protection could increase the diversity of available art, as AI can produce many styles and forms, including interactive and generative art that might not be possible with traditional methods. This enrichment of cultural experiences would provide more choices for consumers.
- **Deontological:** Denying copyrights to AI-generated artwork is essential to ensure that true artists don't feel undervalued. From a deontological standpoint, moral rights such as attribution and integrity should be preserved for human creators, who invest their skills, emotions, and unique perspectives into their work. Granting copyrights to AI-generated art could dilute these rights, significantly eroding the moral and cultural significance of human authorship. This could damage the value human creators deserve, potentially hindering their pursuit of creating new art. By reserving copyrights for human-made art, we uphold the ethical principles that honor the creative spirit and integrity of human artists.

4. Regulations
For human-created works, copyright requires originality, meaning the work must be independently created by the author and possess some minimal degree of creativity. Additionally, the work must be fixed in a tangible medium, such as being written down, recorded, or otherwise captured in a form that can be perceived, reproduced, or communicated. For AI-generated works, originality means the work must be independently created by the AI with more than 50 percent creativity. The work must also be fixed in a tangible medium. AI companies should retain a small percentage of copyright ownership to use the artworks for training their models but not for direct publication. Under GDPR, individuals have the Right to be Forgotten, allowing them to request the deletion of their personal data when it is no longer necessary for the purpose it was collected. If a user who generated artwork with AI wants to withdraw the copyright, they can disable it immediately. Non-compliance with GDPR can lead to severe penalties, including fines of up to 4% of a company's annual global turnover or €20 million, whichever is higher. Article 83(4) GDPR specifies fines of up to 10 million euros or, in the case of an undertaking, up to 2% of its entire global turnover of the preceding fiscal year, whichever is higher. Importantly, these fines apply to the AI company, not the user. If the AI company violates laws and regulations, it must be fined the same percentage or amount.

5. Projections
Based on the regulations we have previously established, here are several projections we believe are likely to occur in the future regarding copyrights for AI-generated artworks:

First, there may arise potential issues concerning copyright regulation. As per our enacted regulations, both the owner and the AI-generating company hold copyrights to the artwork. The company also has the right to use the artwork as training data to enhance its current models. However, complications could arise if an owner decides to withdraw their copyright. In such a case, should the company be required to retrain the model by removing these artworks or issue a directive to the AI to restrict its use of features from these artworks?

Secondly, we anticipate a possible shift toward fine policy differentiation. At present, no law prohibits the use of artworks to train AI models, allowing individuals and small companies to easily develop AI that produces artistic content. However, with the implementation of more stringent policies, it is likely that only larger companies will be able to comply, potentially rendering smaller companies less competitive.

Additionally, there will be a need to enhance current explainable AI (XAI) technology. This is crucial for determining the extent of AI's contribution to an artwork in order to decide whether it qualifies for copyright. For instance, if a song is created, we could use XAI to delineate and assess the contributions of various styles and genres within the song, and thereby determine whether the AI-generated portion meets the threshold of over 50 percent.

Finally, we project the emergence of more disruptive AI technologies designed to protect artists' copyrights. As artworks are copyrighted, it is imperative to safeguard them against imitation by other generative AIs. A model called GLAZE is currently addressing this challenge by introducing minimal changes to the artwork—imperceptible to human eyes but significant enough to mislead other AIs into producing dissimilar content.

6. Reference

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