

Mitigating the Threat AI Poses to Human Artists

In asking how the dangers of AI artwork can be mitigated to ensure that human artists are able to maintain their individuality and appeal in the creative field, I intend to find out what resources or limits are put in place to keep human-made artwork protected from AI. The creation of AI art runs on human input, which essentially means that AI art is more of a fusion of art that has been trained to create than something original. Human artists' work is run through AI, and AI makes something similar by using a collection of what it sees. Therefore, human artists are subject to significant vulnerability, especially style-wise. What makes an artist most individual is how they create something, their process, which is often visible through aspects like color, composition, and line. Text-to-image diffusion models like Midjourney and Stable Diffusion allow individuals to generate AI art that mimics specific artistic styles, practically stealing trademarks and allowing others to profit from the generated work (Shan et al., 2023). Despite the danger this poses to human artists financially and creatively, not much is explored in regard to what steps, actions, or even applications can alleviate the stress of AI art. Drawing on research into applications that deter AI's ability to replicate or use an artist's work, I seek to investigate what is available for human artists to protect their work and ideas from AI, as well as establish their creativity without worry of generative imitation.

I will conduct an experiment similar to those of Anthony Rhodes (2023) and Shan et al. (2023). I would evaluate anti-art-theft applications such as MAMC, Glaze, and Nightshade and identify the most effective way to protect human-created art. I plan to narrow the applications down by testing the tools with the work of artists and conclude the percentage of disrupted style mimicry and overall effectiveness. As studied by Rhodes (2023), this sort of experimental model "empowers users to decide on the specific strength of protection suitable for their use case."

Layla Semien
UNIV 100
Section 50

Through this examination, artists can see the benefits and drawbacks of each tool, how they are best used, and even information on how to use them. Shan et al. suggest an experiment that delves further into the user control and the lifespan of the application, working to develop levels of distortion that render artwork inaccessible to AI and examining attempts to bypass the application. My exponent would draw heavily on the information provided here and even suggest the longevity of the tools. Understanding what is future-proofed and can fight against bypass attacks is crucial to finding the perfect anti-AI solution for art theft and mimicry.

Navigating the danger AI presents to artists is significant because the lives of artists are at risk. Findings by Ghosh & Fossas (2022) confirm that AI-generated art displaces original art in search results, further disrupting the artist's ability to advertise and promote work to potential customers. Artists, even those whose work is used to generate AI art, are becoming hidden by creations driven by prompts and fed with the often unauthorized use of other's work. Human artists are no longer able to gain recognition and find employment. As a result, many artists feel the need to quit or look into other careers. Art careers seem fragile and unstable with the heightened use and development of generative artwork technologies. Artists who have trained and worked for years to break into the field of art are now being left empty-handed because many would prefer to simply tell an AI what to create rather than pay an artist to make it. In fact, numerous industries are already being revolutionized by artificial intelligence, allowing designers to produce material more quickly and effectively (Nguyen, 2023). The increased use of AI in the art industry as a means of replacing real artists means that human artists are practically becoming obsolete in both online searches and jobs. The extermination of human artists and human-made artwork is unethical, and in order to ensure that the artists behind AI art are able to make a living and have value in the creative domain, AI artwork must be controlled.

Works Cited

Ghosh, A., & Fossas, G. (2022, November 19). *Can there be art without an artist?*.

arXiv.org. <https://arxiv.org/abs/2209.07667>

Nguyen, D. (1970, January 1). *The effects of AI on Digital artist*. Theseus.

<https://www.theseus.fi/handle/10024/795505>

Rhodes, A., Bhagat, R., Ciftci, U. A., & Demir, I. (2023, September 6). *My art my choice:*

Adversarial protection against unruly ai. arXiv.org. <https://arxiv.org/abs/2309.03198>

Shan, S., Cryan, J., Wenger, E., Zheng, H., Hanocka, R., & Zhao, B. Y. (2023, August 3).

Glaze: Protecting artists from style mimicry by text-to-image models. arXiv.org.

<https://arxiv.org/abs/2302.04222>