Do Androids Dream of Digital Art?
Addressing the Spectrum of Perspectives on AI -Generated Artwork

Alina Kalmeyer

IPHS 200 Programming Humanity (Fall 2022) Prof Elkins and Chun, Kenyon College

Abstract:

The growing prominence of AI art algorithms has forced art institutions, artists, and consumers alike to confront ethical questions surrounding artistic autonomy and the future of a paradigm in art. The spectrum outlined below addresses the perspectives of creatives, industry experts, and institutions alike, as they work to address ethical questions surrounding AI in art, such as: What is the role of the artist in creative processes? Can machines be creative? Is creativity an inherently human trait?

Background:

While the rising prominence of AI technology has come to define daily life in 21st century, there exists a clear information gap in understanding this new tech. Thus, in order to engage in meaningful discourse about the ethics of AI, we must first demystify this technology. Artificial Intelligence (AI) is a form of computer-simulated human behavior, generated by a trained algorithm.

Whereas earlier AI has centered on simulating general intellectual activity, such as logic and decision-making, our current era of AI 2.0 is interested in mimicking complex human process, such as neural networks. AI 2.0 aims to mimic human thinking around narrow topics. This is accomplished through 'deep' or 'machine' learning, which involves "an algorithm that improves its performance by learning from data" (Zhang 3). This process is not premised on true *understanding* but, rather, *pattern recognition*. As machine learning algorithms are trained on datasets to simulate "learning", this form of technology relies on big data in order to improve its recognition rates and accuracy. Thus, recent improvements in computational power, coupled with the availability of large data sets facilitate by the rise of the Internet (Zylinska 25), have led to drastic advancements in the field of AI.

Ahmed Elgammal, Smithsonian Magazine, 2017

Introduction: AI in Art

Similar to general AI, machine learning art algorithms aim to simulate art through pattern recognition. They acquire an aesthetic approach through training on large image datasets, usually centering a particular art style, historical time period, or digital art platform. Through a self-referential "learning" process the algorithm analyzes the images' content and style and begins generating outputs which fall in line with these aesthetics, becoming increasingly accurate the more images it receives and the more outputs it creates.

While revolutionary, AI-based art at large is not an entirely new invention, as the interplay between art and technology has a historical basis in the Internet art movement of the 90s, which utilized Internet-based platforms, mediums, and processes to critique the hegemonic nature of technology.

Still, modern intersections between tech and art far exceed these art historical approaches both in their complexity and popularity. As AI-generated art is becoming more realistic, multiplistic, and accessible to the average user, it is also increasingly assimilating into mainstream culture. With the rise of AI-generated art, low-brow forms of generation have also become widely accessible, such as free or trial-type platforms such as Craiyon (DALL-E mini), StarryAI, and NightCafe, and apps such as Lensa AI, which have surfaced a flurry of ethical concerns surrounding this field.

Spectrum of Sentiments Towards AI in Art (2022):

PRO — "AI Art Revolution" — "Transgression is Profit" — "Process is Paramount" — "Output Over Process" — "New-Ish Normal" — "Exploitation" — "An insult to life itself" — ANTI

Ethical Spectrum Discussion:

AI Art Revolution: *AI is transforming the definition of artwork and its relationship to the artist.*

- AI artists are creating work which would otherwise be physically and intellectually impossible to achieve. AI generated art presents a revolutionary expansion of artistic limits. AI art should, thus, not function as a tool to aid creativity within the bounds of human possibility, but rather, revolutionize "the limits of the human idea of creativity and of human-machinic assemblages" (Zylinska 58). This machine-human collaboration, in itself, pushes the bounds of our definitions of "art", which should be the purpose of contemporary art processes in general. In turn, conversations around AI art should shift from a discussion of ethics to a reconsideration of the definition of artwork and artist, to incorporate machine creativity. Robots aren't coming to replace the artist or art. Instead they are inviting us to question what makes a work of art– and what makes an artist (Zylinska 57).

- The art world is beginning to accept such perspectives, as embodied in the MoMA's 2022 exhibition of Refik Anadol's *Unsupervised*, which represents the first mainstream, institutional exhibition of AI generated art *(pictured left)*.

Transgression is Profit: *pushing the bounds through AI means pushing profit margins for institutions.*

- As AI generated art has risen into the spotlight, contemporary institutions are, hesitantly, hopping on the bandwagon. In an age of information saturation and hyper-production of art, this spotlight of attention has become one of the most important principles of success (Cetenic 13); by aligning themselves with AI artists, institutions generate greater attention and, with that, profit. Throughout 2022, auction houses such as Christie's and Sotheby's have held multiple AI art sales, with most recent auctions bringing in a total of $2.3 million in sales (Edwards 2022). In this way, AI art has not only shifted the artistic paradigm, but continues to function as a cultural driver, redefining mainstream aesthetic tastes and regulating the art market. (Zylinska 69)

- The influence of AI on the art market is embodied by Sotheby's 2018 sale of "Portrait of Edmond Bellamy" *(pictured left)* by AI art collective, *Obvious*. The overhyped piece sold at $432,500, which was 45 times its estimated price, thus resulting in immense profit for the institution.

Process is Paramount: *AI should become assimilated as a process or tool, not a paradigmatic shift.*

- AI is not sentient and, thus, does not independently create artwork. Humans are deeply involved in the process of machine creativity at three key points: first, a human designs the machine learning network; second, the human creates the training set; third, the human selects the most successful generated products (Manovich 4). In order to employ this process in their work, an artist must have a profound grasp of AI programming. Thus, like all other art processes, AI art generation functions as an objective tool which is both reproducible and personalizable. As a skill set, it can also be learned, practiced, and perfected. The reproducibility of AI algorithms as tools has resulted in a range of AI art styles, thus embodying the multiplicity made possible by AI programs.

Output Over Process: *AI art can still be bad art.*

- While this art form presents a unique new mode of creation, as a human-directed process it is still plagued with human error, particularly in aesthetic calculation and curation. Similar to human-made art, not all AI-generated art is aesthetically attractive or meaningful. As human-programmed systems, AI algorithms also often produce underwhelming works, thus embodying similar flaws to human artists. As stated in a 2021 interview by art critic, Jerry Saltz *(pictured left)*: AI art can still be a "pretty crapola illustration." Simply because AI art is innovative, does not mean that it is universally pleasing. Thus, instead of considering the process behind AI creations, when encountering these works we should instead consider the question: is this good art or bad art?

"New -ish" Normal: *Instead of pushing the envelope, AI art presents further progress towards aesthetic norms.*

- Historically, humans have created artwork within the scope of a *meta-pattern*, which is a "a systematic rigid style within one group of artifacts, and also within a single artifact" (Manovich 7). We are less interested in works which employ a range of aesthetics; in looking at popular and successful AI-generated artworks, we can observe a similar aesthetic pattern. This is due to the fact that these algorithms are often trained off of historical or man-made artworks, which naturally embody a propensity for human aesthetics. In this way, "we force computers to create like us..it would be more radical to use computers to break away from this meta pattern of human culture" (Manovich 7). Yet, because the style of a particular artwork is grounded in a broader art historical context, in order to push the boundaries of human aesthetics, a computer would first have to possess basic knowledge of art history and contemporary approaches to art-making. This is something nobody has tried to program into AI (Manovich 2).
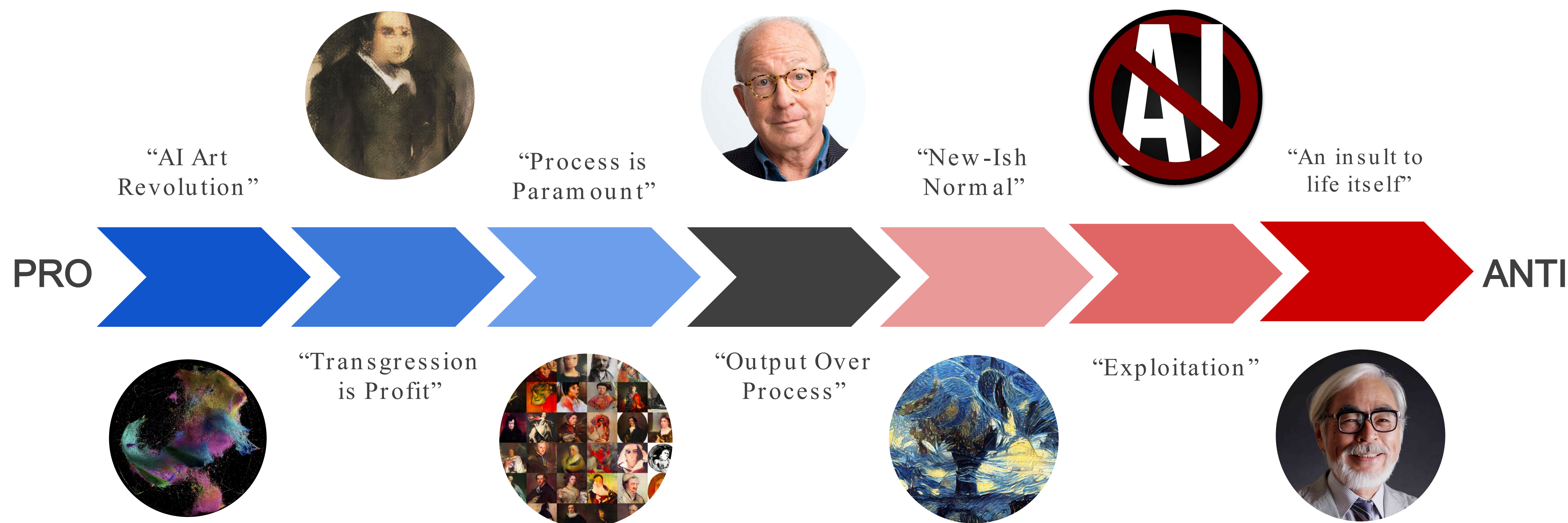
Exploitation: *The field of AI is centered on a lack of attribution and stolen labor.*

- Training AI art algorithms involves the incorporation and analysis of huge image datasets. In the age of the Internet, these datasets are increasingly mined off of publicly accessible Internet platforms, which are populated with contemporary human artworks and artists. Often, artists are not consulted about the data mining of their work, and are thus not able to give consent or profit from the reconstruction of their works by AI. This becomes particularly problematic as AI often generates eerily close *copies* of human works, without providing attribution (Xhiang 2020).

- Furthermore, as artwork is a product of intensive human labor, often deeply physically, emotionally, and economically draining, its free and unchecked appropriation by a program lacking sentience is particularly concerning.

"An insult to life itself": *Creativity should remain an inherently human quality.*

- When shown AI-generated artworks which are profoundly emotional, disturbing or realistic, many people react negatively. In response to a horror short film generated by an AI algorithm, Japanese filmmaker Hayao Miyazaki *(pictured left)* responded by saying, "I can't watch this stuff and find [it] interesting. Whoever creates this stuff has no idea what pain is whatsoever. I am utterly disgusted..I strongly feel that this is an insult to life itself." Human-made visual representations of human experiences, such as suffering, pain, and love are meaningful particularly because they are created by human beings who have at one point experienced those emotions. Their experiential background is then sublimated through the intentional process of art-making, which brings the artwork its intersubjective meaning. As it is created by mimicry algorithms, AI art lacks this experiential component. While machines can visually replicate artwork based on the emotional experiences of other, human artists, they cannot themselves manifest emotional experiences through the process of creation. In this way, AI artwork may not be "real" art.

Conclusion:

This spectrum of opinions reveals the pure range in paradigmatic perspectives about art. Perhaps, this reveals that our definitions of creativity are flawed in their entirety, in that they are overly reliant on paradigms, centering methods of creativity and art-making above the objective of innovation itself. By recentering art as humanity's "attempts to understand being in the world" (Zylinska, 67), we can come to accept innovative pursuits, such as AI, as pushing the envelope of our understandings of consciousness and self in the context of art. Conversely, it remains vital that these pursuits present a form of *critical* engagement, above pure spectacle; "stunning visual spectacle, is of course not the only way of creatively engaging with AI, even if this is the kind of art that features prominently in AI-focused shows" (Zylinska 133). Only by remaining self-critical and self-reflective can innovation embody true creative progress.

SOURCES:
Edwards, Benj, "Artists stage mass protest against AI -generated artwork on ArtStation" *Aristechnica* 15, December 2022. https://arstechnica.com/information-technology/2022/12/artstation-artists-stage-mass-protest-against-ai-generated-artwork/ Accessed

Zhang, Lu. "Study on Article Intelligence: The state of the art and future prospects" *Journal of Industrial Information Integration* , vol. 23, no , 2021, https://doi.org/10.1016/j.jii.2021.100224
Manovich, Lev. "Defining AI Arts: Three Proposals," in AI and Dialog of Cultures," exhibition catalog, Hermitage Museum, Saint-Petersburg, 2019.
Zylinska, Joanna. *AI Art, Machine Visions and Warped Dreams* , E-Book, Open Humanities Press. 2020

Metz, Rachel. "Is AI Art Really Art? This California Gallery Says Yes." CNN: Business. 20, November, 2022 https://www.cnn.com/2022/11/20/tech/ai-art-exhibit-cipg/index.html Accessed

Xiang Chloe "Artists are Revolting Against AI Art on Art Station " *Vice.* 14, December 2020 https://www.vice.com/en/article/ake9me/artists-are-revolt-against-ai-art-on-artstation Accessed