The Dance of Agencies in AI Art –Beyond the Creator–Tool Dichotomy, a Netnographic Analysis of Reddit Forums

Preprint · August 2023

DOI: 10.13140/RG.2.2.10608.43527/1

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The Dance of Agencies in AI Art —Beyond the Creator-Tool Dichotomy, a Netnographic Analysis of Reddit Forums - Revised Pre-Print version (01/12/2023) – Oshri Bar-Gil

Full accepted version is published at:

Oshri Bar-Gil; The Dance of Agencies in AI Art–Beyond the Creator-Tool Dichotomy, a Netnographic Analysis of Reddit Forums. *Journal of Posthuman Studies* 1 December 2023; 7 (2): 129–149. doi: https://doi.org/10.5325/jpoststud.7.2.0129

Abstract:

This study analyzed the impact of generative artificial intelligence (AI) systems on contemporary AI-based art generation practices. As algorithms display nascent creativity, they catalyze philosophical questions regarding the role of technology in artistic creation. However, the influence of AI on art creation, perception, and consumption remains unexplored by empirical research.

This analysis integrates the theoretical frameworks of post-phenomenology and actor-network theory to investigate how generative AI technologies mediate creators' perception, agency, and imagination. It explores how human-algorithm assemblages may expand possibilities while also obscuring the anthropocentric constructs underpinning art. It uses Netnography to explore artistic communities that interact with the Reddit website to illustrate the tensions arising as human rationalities and intentions collide with algorithmic logics and constraints. The results reveal generative AI's potential to delegate intentionality as well as its potential influence on agency, rationality, and memory. Using empirical grounding, this study elucidates the complex entanglements among artists, algorithms, artwork, and the public in the emerging generative AI terrain.

Keywords:

Generative artificial intelligence, art creation, post-phenomenology, artistic intentionality, algorithmic rationality, connective memory, netnography, Reddit

Introduction

Generative artificial intelligence (GAI) has emerged as a powerful creative tool in the field of art creation, transforming traditional artistic processes and expanding the boundaries of creative expression. By leveraging machine learning algorithms and neural networks, GAI systems can generate novel and unique artworks autonomously or in collaboration with human artists (Busch, 2023; Galanter, 2016; Koerner, 2023). GAI fuses generative poesis with automated praxis within iterative computational systems. It is a type of art creation that does not divide poesis from praxis and embodies an almost pure relational, algorithmic form of art creation. Amalgamation of generative and applied functions within iterative computational systems that function as an ideal candidate for posthuman art form (Sorgner, 2022). Yet, questions regarding its influence on art creation and art perception, and

consumption remain unanswered by empirical research (Chatterjee, 2022). As generative AI becomes further enmeshed within artistic creation processes, a multifaceted question crystallizes: can emerging human-algorithm collaborations meaningfully augment creative possibilities without imposing restrictive computational rationalities or eroding fundamental facets of artistic agency?

There is a significant amount of technical and philosophical literature on GAI, yet empirical research validating hypotheses and claims in the context of human-machine interaction remains scarce, and actual perceptional changes remain unknown. While theoretical discussions offer valuable insights, empirical studies are essential for bridging the gap between speculation and tangible evidence. Conducting rigorous empirical research can provide concrete insights into the cognitive, emotional, and behavioral dimensions of human engagement with GAI artwork. This approach can enrich our understanding, empower artists and researchers, and foster a deeper appreciation of the interplay between human creativity and the transformative potential of GAI systems (Galanter, 2016).

Generative AI and Art Creation

Generative AI refers to a branch of AI that focuses on creating systems capable of producing original and creative output. In the context of art creation, GAI algorithms can generate images, music, poetry, and other artistic forms, often based on large datasets and predefined rules or patterns. The use of GAI in art offers new opportunities for artists to explore unconventional approaches, generate diverse ideas, and push the boundaries of their creative practice (Gonzalez, 2020; Mazzone & Elgammal, 2019; Pošćić & Kreković, 2020).

This study's critical analysis of the impact of GAI on art creation engages key posthumanist debates. It questions liberal humanist assumptions about the privileged position of the human subject in light of technology's growing capacities (Hayles, 1999; Sorgner, 2010; Wolfe, 2010). This research elucidates the complex networks binding artists, algorithms, artwork, and the public by applying post-phenomenological and ANT (actor-network theory) frameworks (Coeckelbergh, 2020; Latour, 2005; Verbeek, 2005). In centering tensions between human and algorithmic agencies, imaginations, and memories, this study

underscores ambiguities in AI's creative roles, aligning with posthumanism's nuanced negotiation between progress and preservation (Braidotti, 2013).

The Role of AI affordances in Expanding Artistic Possibilities

GAI has opened new avenues for artistic experimentation and exploration. AI systems can generate complex and intricate artwork that may be impractical or time-consuming for human artists to create manually. This technological innovation enables artists to transcend the limitations of their own skills and knowledge, resulting in novel artistic expressions (Zammit et al., 2022). Moreover, GAI algorithms can learn from existing artistic styles and genres, allowing artists to seamlessly merge and reinterpret various influences on their work (Elgammal et al., 2017). How does this technology influence art and its creation? Theories focusing on technological mediation may provide a valuable lens for interpretation.

Post-Phenomenology and the Technical Mediation of Art

A new generation of technology philosophers, including Latour (1992), Ihde (1979, 1990), and Mitcham (1994), critiqued earlier thinkers to espouse a narrow, dystopian view of technology as an autonomous force that enframes and diminishes human agency. Specifically, they argue that their predecessors, scholars such as Ellul (1954/2011), Heidegger (1953/2008), and Jaspers (1957) have portrayed technology as a monolithic, deterministic phenomenon completely separate from society that presents inherent threats to human meaning and freedom. In contrast, Latour, Ihde and others focused on the role of technology as a mediator, building and shaping the relationship between human users and the wider environment, depending on use, context, and meaning (Coeckelbergh, 2013, p. 41; Feenberg, 2005; Ihde, 2009).

The French philosopher, Bruno Latour focused on the role of technology in mediating human-world interactions, recognizing that technology shapes human experiences and perceptions, becoming an inseparable part of human existence and forming a network of human and nonhuman actors (or actants) (Latour, 2005). Latour's framework explains technical mediation through a network of interlinking mediation relations of translation, composition, and delegation. This paper leverages Latour's notion of delegation, wherein one agent's intentions are delegated across a network binding artists (human actors),

algorithms (non-human actors), companies, and consumers (Latour, 1999, pp. 183–185). Latour also advanced the metaphor of "opening the black box" regarding the inner complexity of technological artifacts, emphasizing the need to peer inside and unpack sociotechnical associations producing system effects rather than seeing technologies as monolithic external forces (Latour, 1994, pp. 31–40).

Specifically, I used his approach to explore how artistic intentions are delegated to GAI systems, which then reshape the outputs as nonhuman actants imposing their own computational logics. Following this network of mediation reveals complex entanglements between artist intentionality, algorithmic processes, and final artistic "products."

Don Ihde's post-phenomenological approach emphasizes the human experience of technological mediation and how it influences human actions, perceptions, and interpretations of the world (Ihde, 1990, 2009). Ihde's work differentiates between micro and macro perceptions to explore the ways in which human perception is shaped by technology and the environment. Micro perception refers to the immediate sensorial experience of the world, where our senses are attuned to specific stimuli. For example, microscopes extend our micro perception by allowing us to focus on and magnify specific aspects of our environment, thus contributing to changes in macro perceptions. Macro perception refers to a broader, contextual understanding of the world, considering the larger systems, structures, and meanings at play. Ihde emphasizes the exploration of both micro and macro perceptions to gain a comprehensive understanding of our lived experiences and the ways in which technology mediates our perception of the world. Applied to our context of GAI and art creation, Ihde's framework enables an exploration of how artists' embodied interactions with GAI systems impact their artistic expressions, aesthetics, and overall art experiences, as well as the macro perception of how art and its creators change as a result of GAI interaction.

Both theories might offer us a valuable lens for interpretation, but they cannot be considered empirical as methodologies for empirical works (Latour, 1996; Nimmo, 2011). To fill this gap, the present study employed netnography and applied post-phenomenological theories to the analysis of Reddit forums and the experiences shared by users.

Methodology

The present study employed netnographical research on four specific communities on Reddit (subreddits): r/blender[1], r/artistlounge[2], r/StableDiffusion[3], and r/dalle2[4], to gather data and insights relevant to the effects of GAI on art creation. These subreddits were selected based on their active user engagement, diversity of artistic practices, and relevance to the research topic. By targeting these specialized communities, this study aims to capture rich and diverse perspectives from artists, animators, and enthusiasts who are actively involved in utilizing GAI tools within the context of art creation.

Netnography

Netnography, as a qualitative research methodology, was employed to investigate the effects of using GAI on art creation. Netnography is a type of qualitative social media research. It adapts the methods of ethnography to understand social interactions in contemporary digital communications contexts. Netnography is a specific set of research practices related to data collection, analysis, research ethics, and representation, rooted in participant observation. In netnography, a significant amount of data originates in and manifests through digital traces of naturally occurring public conversations recorded by contemporary communications networks (Addeo et al., 2019; Kozinets & Gambetti, 2021). It is particularly useful for studying online-based communities, such as those found on Reddit, where individuals engage in discussions, share experiences, and seek support. Netnography allows researchers to gain a deep understanding of human experiences, capture different perspectives, and explore various aspects of social phenomena (Bartl et al., 2016; Wicaksana & Candrasari, 2023).

It is important to acknowledge the limitations of netnography as a research methodology. One limitation is the potential for incomplete or biased data, as the researcher's access is limited to publicly available data on a given platform (Kozinets et al., 2014). Additionally, netnography relies on self-reported data and may be subject to issues, such as selective self-presentation and limited generalizability (Belk et al., 2020). To overcome these

[1] https://www.reddit.com/r/blender/
[2] https://www.reddit.com/r/ArtistLounge/
[3] https://www.reddit.com/r/StableDiffusion/
[4] https://www.reddit.com/r/dalle2/

limitations and triangulate the findings, a multifaceted netnographic approach was implemented, combining data scraping and content analysis.

Reddit

Reddit was selected as the primary research platform for this study due to its vibrant and diverse user community, particularly in the context of art creation. With millions of active users and a wide range of specialized subreddits, Reddit provides a rich source of data and insights into the experiences, perspectives, and challenges faced by artists using GAI tools.

Discussions on Reddit are primarily public in that anyone, with or without a Reddit account, can view the content (with the exception of private subreddits). Both the original shared content and discussion comments are "voted" on by users, which influences their visibility. To become a Reddit user, all that is required is to select a unique username, and password—email verification is not needed. The terms of service dictate that users must be at least 13 years old to sign up. Site-wide norms discourage participation with one's real name as a privacy protecting measure. As participation in Reddit is pseudonymous, demographic information is difficult to obtain. According to Reddit's website administrators (Reddit.com, 2022), there are more than 57 million daily active unique users, with over 100,000 active communities. Forty-five percent of users were between 18 and 29 years old, and users between 30 and 49 years30-and 49-years old account for another 40%. Fifty-nine percent of the users were male (Intelligence, 2016). Subreddits are both user-created and user-moderated. While there are a few overarching Reddit rules regarding content, subreddits vary considerably in terms of what they allow, and in their specific cultures and norms (Proferes et al., 2021).

Following conventional Reddit research methods (Adams, 2022), data collection involved scraping textual data from the selected subreddits, including post titles, body text, comments, and metadata. Apify Reddit scraper software was used to automate the data scraping process (Baumgartner et al., 2020; Proferes et al., 2021). The collected data was then stored in a structured XLS format for subsequent analysis. The crawler was configured to include only posts from the last six months, to remain up to date, and to explore the

effects of up-to-date AI generating engines. Data collection was limited to 10K results and omitted identifying information from the database analyzed due to ethical considerations.[5,6]

Data sources	r/ArtistLounge	r/blender	r/dalle2	r/StableDiffusion	Total
post	302	300	291	276	1,169
comment	3,440	1,290	1,525	2,576	8,831
Total	**3,742**	**1,590**	**1,816**	**2,852**	**10,000**

The inclusion criterion for analysis was that the posts were read by the researcher. If the post was selected and relevant, all the comments for the post were also included (Jacques et al., 2023). Overall, the analysis included 61 posts and 397 comments.

Data sources	r/ArtistLounge	r/blender	r/dalle2	r/StableDiffusion	Total
post	16	18	12	15	61
comment	168	81	55	93	397
Total	**184**	**99**	**69**	**108**	**458**

A qualitative approach was employed to analyze the collected data (Pleasure et al., 2022). Thematic coding, a widely used qualitative analysis method, was used to identify patterns, themes, and categories within textual data (Braun & Clarke, 2006; Kozinets, 2015). This allowed for systematic exploration of the effects, experiences, and challenges associated with using GAI in the context of art creation.

Regarding ethical considerations, the study adhered to Reddit's terms of service and respected the community norms and guidelines established within the subreddits. The data collected from the subreddits wasn't anonymized as it is publicly available on Reddit platform and on Google search engine (Anne-Marie et al., 2017; Kozinets & Gambetti, 2021; Proferes et al., 2021).

The limitations of netnography were addressed by combining netnographic techniques with qualitative analysis and interpretation using post-phenomenological theories. The post-phenomenological analysis of the collected data allowed for a deeper exploration of the effects and implications of using GAI on art creation, providing rich and nuanced insights into the experiences and perspectives of artists.

[5] Full code is provided in the supplemental file.
[6] The database is available on request from the author.

Findings and Results

Intentionality

Intentionality is a key concept in understanding the role of human agency. It is a key concept in the philosophy of self, and it has been and has been defined and interpreted in many different ways over the years (Anscombe, 1957; Searle, 2010; Smith, 2017). Searle defined intentionality as: 'that feature of certain mental states and events that consists in their being directed at, being about of, or representing certain other entities and states of affairs' (Searle, 1983, p. 1). In artistic creation, intentionality can refer to the visual or aesthetic goals that guide an artist's creative process, shaping the envisioned outcomes that prior intentions aim to realize (Kolak, 1990).

Searle (2010) argued that there are two different types of intentions that should be distinguished from one another. The first type involves intention directed towards a triggering action. An example of this type is formulating the intention to raise one's hand in 30 seconds. Searle calls this 'prior intention.' The second type of intention relates to the action itself – when, after the 30 seconds have elapsed, the actor indeed raises their hand. Searle calls this 'intention in action.' Searle's argument is that in every action we perform, we take for granted the social context that we are embedded in. This context consists of beliefs, abilities, and possibilities, as manifested in prior intention. Nevertheless, Searle indicated that action cannot be created without intention for in action.

Evans et al. (2017, p. 36) defined affordances as possibilities for action between an object/technology and the user that enable or constrain potential behavioral outcomes in a particular context. AI art generators produce new affordances, neither exclusively human nor algorithmic, but somewhere in between in their common space (Gibson, 1979). This enables the possibility of delegating one's intentions to the AI art generator so that it can produce new intentions in place of one's own— for example, to generate an image or text.

The post titled "*I lost everything that made me love my job through Midjourney overnight*," brings attention to the phenomenon of outsourcing the core of art creation and the consequential loss of artistic intentionality. The artist expresses their frustration by stating, "If I want to 'prompt' something and the algorithm gives me something else—at the very least, I am losing some intentionality" (Sternsafari, 2023). This highlights the artist's

concern about the deviation from their original artistic intentions, their diminishing agency, and the loss of control over their creative process.

When considering the theoretical perspectives of John Searle and Bruno Latour, we can further analyze the implications of technological mediation through delegation of artistic intentionality. Searle's multifaceted concept of intentionality explains the artist's concern about losing intentionality. The artist's frustration stems from the algorithmic mediation dictating the outcomes, which deviates from their original intentions. Latour's (1992) idea of delegation sheds light on the power dynamics at play. By delegating their intentions to GAI, artists relinquish some of their agency, allowing the algorithm to shape the creative output and conform it to algorithmic rationality.

The Dance of Agencies

Autonomy and agency are essential for understanding the dynamic relationship between human creators and GAI machines. Autonomy refers to the capacity for self-governed action based on one's own integrated but open-ended preferences and principles (Kupfer, 1987). Agency denotes the ability to act or exert power towards meaningful ends (Verbeek, 2005). Andrew Pickering (2010) argues that agency is not solely the prerogative of human actors but can also emerge from interactions between humans and non-human entities. He claims that agency is not a fixed attribute possessed by individual actors but rather a relational and emergent property that arises from the entanglement of human and non-human elements.

Generative AI art creation processes have introduced a transformative shift in agency in the art world (Hutson & Schnellmann, 2023). The notion of the artist as the singular creative genius responsible for producing artwork has deep historical roots in Western culture (Bilton, 2010). The work of art was presumed to be the reflection, the outward radiance, of the artist's own imaginative depth and power (Pollock, 1980, pp. 58–59).

The advent of GAI systems destabilizes this cultural notion of individual human agency in art. Multifaceted networks emerge, binding datasets, artists, platforms, algorithms, and publics (Epstein et al., 2020).

The changes in agency contribute to changes in meaning and interpretation. A comment to a post titled, “I am scared of my own drawing” claims that, “New artists often accidentally create images that may appear one way or another. This is usually due to a lack of control and has nothing to do with any subconscious intent” (Bonabbyteit, 2023).

We can see that GAI machines possess their own form of agency, albeit distinct from human agency. These machines can autonomously generate artistic outputs based on learned patterns and algorithms. They contribute to the creation process by producing novel and unexpected artistic expressions (Gülaçti & Kahraman, 2021). This challenges the traditional notion of artistic agency as solely human-centered, and introduces a collaborative dance of agencies between human creators and GAI machines. It is not merely a matter of losing human intentionality and a divergence of logic but a transformation in the entire agency ecosystem. The interplay between human agency and the agency embodied by GAI machines alters the dynamics of art creation. It challenges the traditional notions of authorship, authorial control, and boundaries of artistic expression.

Rationality

This section illustrates three rationalities shaping art creation in the age of GAI—rationality as realization of creative intentions, optimizing economic productivity, and conforming to algorithmic logic. As these distinct paradigms interact, tensions emerge that challenge and change artistic rationality – the internal reasoning and decision-making that guides the artist’s process to effectively realize aesthetic goals, from envisioned intentions to final work (Bar-Gil, 2020).

Rationality as Realization of Prior Intention

Rationality plays a crucial role in art-making, shaping the intentions and decisions of artists as they bring their creative visions to life. Rationality refers to the organized mental logic that people and systems use to set goals and make choices to achieve desired outcomes (Earl, 2016). The concept of "prior intention" is central to understanding the rationality of artistic creation. Searle (2010) described prior intention as an internal plan of action that guides the artist's creative process. It involves envisioning the desired outcome and

mapping the steps to achieve it. The realization of prior intention reflects the artist's rational assessment of functionality and actuation of possibilities.

In the context of algorithmic systems, the realization of prior intention takes on a new dimension. The fusion of human intentions and machine imaginations introduces a gap between the artist's original vision and the outcomes produced by the algorithm. This gap, referred to as the "causality gap" by Searle (2010), allows for preservation of the illusion of free will (Fisher, 2020). While algorithmic systems can execute actions based on prior intentions, they do not fully capture the nuances of human agency and creative expression.

Economic Rational Logic of Mass Production

Economic rational logic is evident in the push for the automation and commodification of artistic processes. Proponents of GAI argue that it can automate their work, enhancing efficiency and productivity (Frey, 2020). However, this perspective overlooks the intrinsic value and significance of artistic labor. Artistic creation often stands in contrast to the economic rationality of mass production, prioritizing efficiency, standardization, and cost-effectiveness (Epstein et al., 2020; Gülaçti & Kahraman, 2021). As artists navigate the commercial art world, they face tension between pursuing their creative vision and conforming to the demands of the market forces (Epstein et al., 2020). The affordances of mass production and the commodification of art conferred by using AI have led to the rationalization of artistic practices to align with those economic objectives. “I saw many people fail. … The pressure of doing the thing you are supposed to enjoy but have to in order to make a living sometimes takes the fun out of it and can even burn you out” (OleanderYuri, 2023).

On a post titled: “Do you love art?” Another user responded that the market expectations of market relevance and visibility forced him to learn how to use the new tools available to him: “I am on the side of thinking that we do have to use every tool available to us to get to that point where we can be relevant and visible in our professions as soon as possible.” (bodymemory1, 2023).

This sentiment was reinforced in other posts as well: “New artists who learn how to use new tools will succeed better. Similarly, automobiles replaced horses. People kept on with new tools” (ScionoicS, 2023).

The public debate in the media, as reflected in an LA Times article, details a similar sentiment expressed by artists regarding the delegation of their work to AI systems. It emphasizes that art is deeply rooted in the artist's identity and passion, stating: "Art is not scrubbing toilets. ... We make art because it is who we are" (Crabapple, 2022). This quote underlines the intrinsic connection between artists and their work, highlighting their commitment and love for their craft. The article further asserts that AI generator evangelists fail to understand the profound dedication that artists have to their work and the value they place on the personal expression it entails. This type of discussion was reflected in a comment to the previous post: "Your statement made me think about the love of a profession. Now there's a hot topic. How do you really know you love something you do? Are you infatuated with it?" (bodymemory1, 2023).

Algorithmic Rationality, Impression, Intention, and Imagination

The adoption of algorithmic systems introduces a distinct form of rationality: algorithmic rationality. Fisher (2020) explains that algorithmic rationality is rooted in optimization, efficiency, and data-driven decision-making. It represents a departure from artistic rationality, as it relies on computational algorithms and statistical models to generate output. Algorithmic systems possess their own unique imagination, shaped by patterns and biases extracted from training data. However, the reliance on algorithmic rationality can suppress artistic imagination. The algorithmic way of thinking, while capable of generating novel and creative output, does so in a non-human manner (Doneson, 2019; Mehozay & Fisher, 2019). The algorithm operates with its own unique imagination, which may diverge from human artistic imagination. As algorithms dictate artistic styles and trends based on GAI, it may curtail eccentricity and divergence integral to artistic imagination and creativity.

"Focus on the soul. If the difference between you and Midjourney is that your art has some meaning or soul behind it, then you want to focus on that. Your art is likely similar enough to thousands of other artists that the AI will be able to do something which already lets the AI Bros make some imitation" (LukeTheCyberpunk, 2023).

Combining these two rationalities, we can notice that as algorithms drive art towards economic-algorithmic logic, the personal and creative dimensions art holds will erode, and

art risks becoming an abstract, impersonal commodity deprived of rich artistic intentionality.

Connective Memory: Bridging Personal, Collective, and Generative AI Systems

Andrew Hoskins (2011, 2017) introduced the concept of connective memory as a framework that expands our understanding of memory beyond the notions of personal or collective memory. Connective memory encompasses the intersections between personal experiences, collective narratives, and digital technology. Connective memory emphasizes the interconnectedness and dynamic nature of memory in the digital age. It encompasses the ways in which individuals and communities engage with, curate, create, and access a broader network of cultural memories through digital platforms and technologies.

Generative AI systems serve as new forms of connective memory by leveraging their capacity to analyze vast amounts of data (in the form of artistic content), replicate styles, and generate novel output. These systems function as repositories of artistic knowledge, accumulating a vast repertoire of visual and conceptual elements from diverse sources (Pošćić & Kreković, 2020). Through their algorithmic operations, they establish intricate connections and associations between these elements, forming a connective network of artistic references (Elgammal et al., 2017).

One compelling example of this is the work of the Turkish artist Refik Anadol. Using Generative Adversarial Network (GAN) algorithms and datasets consisting of millions of publicly available images, Anadol creates mesmerizing "data sculptures." In his "Machine Hallucinations" series[7], Anadol visualizes and explores the collective memory held within these massive datasets, generating new artistic expressions that highlight the interconnectedness of digital culture and human experiences (Harriet Flavel, 2022).

The emergence of GAI systems as connective memory has significant implications for the artistic creation process. Artists are no longer limited to their individual experiences or traditional sources of personal or collective inspiration. They can tap into a vast and constantly evolving network of artistic references, including digital memories present on the cloud and in internet servers. This expanded connective memory provides artists with

[7] https://refikanadol.com/works/machine-hallucinations-nature-dreams/

new ways to interpret and inspire the creation of art, constantly reshaping the patterns and possibilities of artistic expression.

Furthermore, the continuous cycle of content creation and algorithmic learning amplifies the connective memory ecosystem. As new artwork and data are generated, they become part of the collective memory, feeding into the network and influencing future artistic endeavors. This dynamic process redefines the relationship between artists, machines, and the evolving landscape of global connective memory. Some artists see these forms of humanless connection as making their art a "dataset" for algorithm training: "As the number of people interested in my art and commissions increase, I find myself fearing that my art-style will become yet another dataset to train one of those soulless Jpeg generators like Midjourney" (LukeTheCyberpunk, 2023).

Discussion

This article examined the intersection of GAI systems and the realm of artistic creation, focusing on their implications for intentionality, agency, rationality, and memory. These systems leverage vast datasets and algorithmic operations to accumulate and connect artistic references, providing artists with an expanded network of inspiration and reshaping the patterns of artistic expression.

The mediation of intentionality causing reconsideration of authorship in a dance of agencies becomes distributed across networks binding humans and algorithms. Competing rationalities emerge around artistic expression versus economic optimization and conformity to algorithmic logic and imagination; the artistic memory expands from being personal and connective to include vast algorithmic databases, functioning as a dynamic connective memory archive for artistic recollection and inspiration.

Limitations of the Study and Future Research

This study utilized netnography as a research methodology to explore the intersection of GAI systems and artistic creation on user communication in Reddit subforums. Several methodological limitations should be considered.

First, the data collection method poses limitations in terms of representativeness and generalizability. Netnographic research heavily relies on online observations and

interactions within specific online communities, which may not fully capture the diversity of artistic practices and perspectives. The findings of this study are specific to the selected subreddits and may not be applicable to other online platforms or artistic communities.

Furthermore, the study's focus on Reddit as the primary research site introduces limitations in terms of the platform's user demographics and biases. Reddit's user base tends to be skewed towards certain demographics, which may influence the types of discussions and content shared (Proferes et al., 2021). This limits the generalizability of the findings to a broader population of artists and art enthusiasts.

Finally, the reliance on self-reported data and observations within the online community poses limitations in terms of reliability and validity. Netnographic research heavily relies on individuals' self-presentation and self-disclosure, which may not always reflect their true thoughts, motivations, or behaviors (Kozinets, 2015). The researcher's interpretations and biases also play a role in shaping the analysis and findings.

Considering these methodological limitations, future research in this area could incorporate a more diverse range of data collection methods, such as interviews or surveys, to capture a broader range of perspectives and experiences. Comparative analysis across different online platforms and communities can provide insights into how artists engage with AI-generated content in various contexts. Additionally, adopting a mixed-methods approach that combines netnographic research with qualitative interviews or surveys can offer a deeper understanding of artists' perceptions and experiences when using GAI systems. Longitudinal studies can track the evolution of artistic practices over time, while fostering cross-disciplinary collaborations can facilitate innovative artistic practices and uncover new aesthetic possibilities. By pursuing research in these areas, we can enhance our understanding of the impact and potential of GAI systems in artistic creation.

The Changing Notion of Art—What Will the Future Look Like for Artistic Creation?

“The only thing AI has done is convince me that art is just a bunch of bullshit” (LukeTheCyberpunk, 2023).

The ontological and categorical dualities that Sorgner (2022) identifies as constitutive of the posthuman art culture are discussed in his book "philosophy of posthuman art." As

GAI reshapes artistic creation, foundational questions resurface around technology's potential to disrupt or devalue the essence of human artistry. While expanding possibilities, the mediating role of algorithms risks eclipsing the humanistic dimensions of art, as forewarned by Heidegger's warnings about technology's enframing effects. In his seminal work "The Question Concerning Technology," Martin Heidegger (1953/2008) explores the transformative impact of technology on our relationship with the world. He argues that technology, driven by its inherent enframing nature (Gestell), reduces humans in front of technology to a mere standing-reserve, stripping away the true essence and revealing only instrumental value. Heidegger contends that art, on the other hand, has the potential to transcend this stance and reveal the world in its authentic and meaningful form (Gestell). The human intention and the genuine connection between the artist and the artwork may be overshadowed by the predetermined patterns and datasets dictated by AI algorithms.

Walter Benjamin's insights on the loss of aura, its unique presence and the authenticity of one-of-a-kind artwork, in the age of technological reproducibility provide a valuable lens through which we can examine the implications of GAI on the artistic realm. Benjamin argued that the unique existence of a work of art bears the mark of its historical context and cannot be fully replicated in reproductions. He astutely observed that even the most perfect reproduction lacks the distinct aura tied to the artwork's history (Benjamin, 1935/2008, p. 21). In the context of GAI, which produces art through algorithmic processes, the question arises: Does the loss of aura, as understood by Benjamin, extend to this form of AI-generated art? While Benjamin's ideas were primarily focused on the reproducibility of traditional artwork, his emphasis on the loss of the here and now and the historical context can be applied to the GAI context.

In GAI systems, algorithms and computational processes mediate the individual artistic intention. The GAI system becomes the primary agent in the creation of art, and one might consider it detached from the historical lineage and personal expression that Benjamin attributes to the aura. As Benjamin wrote in his famous letter to Adorno: "I now find it somewhat disturbing ... that you have now rather casually transferred the concept of the magical aura to the 'autonomous work of work' and flatly assigned a counter-revolutionary function to the latter" (Benjamin, quoted in (Osborne & Charles, 2015, p. 25).

Therefore, the introduction of GAI art can be seen as a further departure from Benjamin's notion of aura, as the art is detached from the unique existence and historical embeddedness of the artist. Instead, GAI art emerges from the current collective-algorithmic "memory" in the cloud and internet servers, constantly reshaping its form and patterns. It also challenges what the artists are considering as ‘art’ in its broad sense:

> It has just made me realize that art is just expression. That is all it has ever been. And frankly, I don't care about the umbrella term of "art". I love painting because of what it makes me feel; not because it is "art". I don't share common bonds or ideas with "artists" who meddle in mediums I have never touched. The concept of art and artists is as vague as is the difference between a painter and a welder, a sandwich artist, a spear thrower. They all inhabit expressions in one form or another, but for the past decade there has been thorough brainwashing about what "art" is (LukeTheCyberpunk, 2023).

Heidegger's call for art as a transformative force that reawakens our connection with the world stands as a powerful reminder of the need for genuine human expression in the face of algorithmic creation. Benjamin's keen observations on the loss of aura and the temporal, technological, and cultural contingencies of art challenge us to critically examine the authenticity and uniqueness of artistic experiences in the age of AI-generated reproductions.

Summary

As GAI systems reshape the landscape of artistic creation, we must confront the fundamental question of whether these technological advancements can fully capture the depth and essence of human artistic expression. The transformative potential of art lies not only in its aesthetic qualities, but also in its ability to evoke emotional responses, challenge conventions, and offer profound insights into the human condition (Millet et al., 2023). While GAI may produce visually stunning and technically impressive works, it remains a crucial task to reflect on the subtle nuances of artistic intention, the irreplaceable aura of the here and now, and the dynamic interplay between the artist, the artwork, and the viewer.

In this era of unprecedented technological progress, it is essential to preserve the integrity of artistic creation and the rich tapestry of human experiences that art embodies. Embracing the possibilities offered by GAI while remaining vigilant about its potential pitfalls is key. By engaging in critical discourse, nurturing the creative spirit, and cultivating a deep appreciation for the profound and transformative power of art, we can navigate the complex intersection of technology and artistic expression, forging a future where human agency, authenticity, and the enduring relevance of art thrive.

References

Adams, N. N. (2022). 'Scraping' Reddit posts for academic research? Addressing some blurred lines of consent in growing internet-based research trend during the time of Covid-19. *International Journal of Social Research Methodology*, *0*(0), 1–16. https://doi.org/10.1080/13645579.2022.2111816

Addeo, F., Delli Paoli, A., Esposito, M., & Ylenia Bolcato, M. (2019). Doing Social Research on Online Communities: The Benefits of Netnography. *ATHENS JOURNAL OF SOCIAL SCIENCES*, *7*(1), 9–38. https://doi.org/10.30958/ajss.7-1-1

Anne-Marie, T., Chau, N., & Kimppa Kai, K. (2017). Ethical questions related to using netnography as research method. *The ORBIT Journal*, *1*(2), 1–11. https://doi.org/10.29297/orbit.v1i2.50

Anscombe, G. E. M. (1957). *Intention*. Harvard University Press.

Bar-Gil, O. (2020). Clipping us together: The case of the Google Clips camera. *NECSUS European Journal of Media Studies*, *9*(#intelligence), 215–236. https://doi.org/10.25969/mediarep/14308

Bartl, M., Kannan, V. K., & Stockinger, H. (2016). A review and analysis of literature on netnography research. *International Journal of Technology Marketing*, *11*(2), 165–196. https://doi.org/10.1504/IJTMKT.2016.075687

Baumgartner, J., Zannettou, S., Keegan, B., Squire, M., & Blackburn, J. (2020). The Pushshift Reddit Dataset. *Proceedings of the International AAAI Conference on Web and Social Media*, *14*, 830–839. https://doi.org/10.1609/icwsm.v14i1.7347

Belk, R., Weijo, H., & Kozinets, R. (2020). Enchantment and Perpetual Desire: Theorizing Disenchanted Enchantment and Technology Adoption. *Marketing Theory*. https://doi.org/10.1177/1470593120961461

Benjamin, W. (2008). *The work of art in the age of its technological reproducibility, and other writings on media* (M. W. Jennings, B. Doherty, & T. Y. Levin, Eds.; E. F. N. Jephcott, Trans.). Belknap Press of Harvard University Press. (Original work published 1935)

Bilton, C. (2010). Manageable creativity. *International Journal of Cultural Policy*, *16*(3), 255–269. https://doi.org/10.1080/10286630903128518

bodymemory1. (2023, July 10). *Do you love art?* [Reddit Post]. R/ArtistLounge. www.reddit.com/r/ArtistLounge/comments/14vmkrf/do_you_love_art/

bonabbyteit. (2023, July 7). *I am scared of my own drawing* [Reddit Post]. R/ArtistLounge. www.reddit.com/r/ArtistLounge/comments/14tk81y/i_am_scared_of_my_own_drawing/

Braidotti, R. (2013). *The posthuman*. Polity Press.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Busch, K. E. (2023). *Generative artificial intelligence and data privacy: A primer* (R47569; p. 8). Congressional Research Service. https://crsreports.congress.gov/product/pdf/R/R47569

Chatterjee, A. (2022). Art in an age of artificial intelligence. *Frontiers in Psychology*, *13*. https://www.frontiersin.org/articles/10.3389/fpsyg.2022.1024449

Coeckelbergh, M. (2013). *Human being risk: Enhancement, technology and the evaluation of vulnerability transformations*. Springer.

Coeckelbergh, M. (2020). Artificial Intelligence, Responsibility Attribution, and a Relational Justification of Explainability. *Science and Engineering Ethics*, *26*(4), 2051–2068. https://doi.org/10.1007/s11948-019-00146-8

Crabapple, M. (2022, December 21). *Op-Ed: Beware a world where artists are replaced by robots. It's starting now.* Los Angeles Times. https://www.latimes.com/opinion/story/2022-12-21/artificial-intelligence-artists-stability-ai-digital-images

Doneson, D. (2019). The Conquest of Fortune: On the Machiavellian Character of Algorithmic Judgment. *Social Research: An International Quarterly*, *86*(4), 871–883.

Earl, P. E. (2016). Bounded Rationality in the Digital Age. In R. Frantz & L. Marsh (Eds.), *Minds, Models and Milieux: Commemorating the Centennial of the Birth of Herbert Simon* (pp. 253–271). Palgrave Macmillan UK. https://doi.org/10.1057/9781137442505_15

Elgammal, A., Liu, B., Elhoseiny, M., & Mazzone, M. (2017). *CAN: Creative Adversarial Networks, Generating "Art" by Learning About Styles and Deviating from Style Norms* (arXiv: 1706.07068). arXiv. https://doi.org/10.48550/arXiv.1706.07068

Ellul, J. (2011). *The technological society* (J. Wilkinson, Trans.). Vintage books. (Original work published 1954)

Epstein, Z., Levine, S., Rand, D. G., & Rahwan, I. (2020). Who Gets Credit for AI-Generated Art? *iScience*, *23*(9), 101515. https://doi.org/10.1016/j.isci.2020.101515

Evans, S. K., Pearce, K. E., Vitak, J., & Treem, J. W. (2017). Explicating Affordances: A Conceptual Framework for Understanding Affordances in Communication Research. *Journal of Computer-Mediated Communication*, *22*(1), 35–52. https://doi.org/10.1111/jcc4.12180

Feenberg, A. (2005). *Heidegger and Marcuse: The catastrophe and redemption of history*. Routledge.

Fisher, E. (2020). Can Algorithmic Knowledge about the Self Be Critical? *Helsinki University Press*. https://doi.org/10.33134/HUP-4-6

Frey, C. B. (2020). *The technology trap: Capital, labor, and power in the age of Automation* (First paperback printing). Princeton University Press.

Galanter, P. (2016). Generative Art Theory. In *A Companion to Digital Art* (pp. 146–180). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118475249.ch5

Gibson, J. J. (1979). *The Ecological Approach To Visual Perception*. Psychology Press.

Gonzalez, A. (2020). Artificial Intelligence as an Art Director. *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment*, *16*(1), Article 1. https://doi.org/10.1609/aiide.v16i1.7454

Gülaçti, İ. E., & Kahraman, M. E. (2021). The Impact of Artificial Intelligence on Photography and Painting in the Post-Truth Era and the Issues of Creativity and Authorship. *Medeniyet Sanat Dergisi*, *7*(2), 243–270. https://doi.org/10.46641/medeniyetsanat.994950

Harriet Flavel. (2022). Art and Artificial Intelligence—The robots are coming, for you and your art. *Vault*, *42*. https://vaultmagazine.com/issue_features/ai_feature_ISS40.php

Hayles, N. K. (1999). *How we became posthuman: Virtual bodies in cybernetics, literature, and informatics*. University of Chicago Press.

Heidegger, M. (2008). The Question Concerning Technology. In *Basic Writings* (Revised, Expanded ed. edition). Harper Perennial Modern Classics. (Original work published 1953)

Hoskins, A. (2011). 7/7 and connective memory: Interactional trajectories of remembering in post-scarcity culture. *Memory Studies*, *4*(3), 269–280. https://doi.org/10.1177/1750698011402570

Hoskins, A. (2017). Memory of the Multitude: The End of Collective Memory. In A. Hoskins (Ed.), *Digital Memory Studies: Media Pasts in Transition*. Routledge.

Hutson, J., & Schnellmann, A. (2023). The Poetry of Prompts: The Collaborative Role of Generative Artificial Intelligence in the Creation of Poetry and the Anxiety of Machine Influence. *Global Journal of Computer Science and Technology*, 1–14. https://doi.org/10.34257/GJCSTDVOL23IS1PG1

Ihde, D. (1979). *Technics and praxis*. D. Reidel Pub. Co.

Ihde, D. (1990). *Technology and the lifeworld: From garden to earth*. Indiana University Press.

Ihde, D. (2009). *Postphenomenology and technoscience: The Peking University lectures*. SUNY Press.

Intelligence, S. (2016, December 6). The user demographics of Reddit: The Official App. *Medium*. https://medium.com/@sm_app_intel/the-user-demographics-of-reddit-the-official-app-7e2e18b1e0e1

Jacques, L., Valley, T., Zhao, S., Lands, M., Rivera, N., & Higgins, J. A. (2023). "I'm going to be forced to have a baby": A study of COVID-19 abortion experiences on Reddit. *Perspectives on Sexual and Reproductive Health*, *55*(2), 86–93. https://doi.org/10.1363/psrh.12225

Jaspers, K. (1957). *Man in the Modern Age*. Anchor Books.

Koerner, K. (2023, March 28). *Generative AI: Privacy and tech perspectives*. https://iapp.org/news/a/generative-ai-privacy-and-tech-perspectives/

Kolak, D. (1990). Art and Intentionality. *The Journal of Aesthetics and Art Criticism*, *48*(2), 158–162. https://doi.org/10.2307/430907

Kozinets, R. (2015). *Netnography: Redefined*. SAGE.

Kozinets, R., Dolbec, P.-Y., & Earley, A. (2014). Netnographic Analysis: Understanding Culture Through Social Media Data. In U. Flick, *The SAGE Handbook of Qualitative Data Analysis* (pp. 262–276). SAGE Publications Ltd. https://doi.org/10.4135/9781446282243.n18

Kozinets, R., & Gambetti, R. (Eds.). (2021). *Netnography unlimited: Understanding technoculture using qualitative social media research*. Routledge/Taylor & Francis Group.

Kupfer, J. (1987). Privacy, Autonomy, and Self-Concept. *American Philosophical Quarterly*, *24*(1), 81–89.

Latour, B. (1992). ‘“Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts.”’ In W. Bijker & J. Law, (Eds.), *Shaping Technology/Building Society: Studies in Sociotechnical Change* (pp. 225–258). MIT Press.

Latour, B. (1996). On actor-network theory: A few clarifications. *Soziale Welt*, 369–381.

Latour, B. (1999). On recalling ANT. *The Sociological Review*, *47*(S1), 15–25. https://doi.org/10.1111/j.1467-954X.1999.tb03480.x

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.

LukeTheCyberpunk. (2023, July 6). *Looking for ways to make my art "Ai proof"* [Reddit Post]. R/ArtistLounge. www.reddit.com/r/ArtistLounge/comments/14s16ge/looking_for_ways_to_make_my_art_ai_proof/

Mazzone, M., & Elgammal, A. (2019). Art, Creativity, and the Potential of Artificial Intelligence. *Arts*, *8*(1), Article 1. https://doi.org/10.3390/arts8010026

Mehozay, Y., & Fisher, E. (2019). How algorithms see their audience: Media epistemes and the changing conception of the individual. *Media, Culture, and Society*. https://www.academia.edu/38528339/How_algorithms_see_their_audience_media_epistemes_and_the_changing_conception_of_the_individual

Millet, K., Buehler, F., Du, G., & Kokkoris, M. D. (2023). Defending humankind: Anthropocentric bias in the appreciation of AI art. *Computers in Human Behavior*, *143*, 107707. https://doi.org/10.1016/j.chb.2023.107707

Mitcham, C. (1994). *Thinking Through Technology: The Path Between Engineering and Philosophy*. University of Chicago Press.

Nimmo, R. (2011). Actor-Network Theory and Methodology: Social Research in a More-Than-Human World. *Methodological Innovations Online*, *6*(3), 108–119. https://doi.org/10.4256/mio.2011.010

OleanderYuri. (2023, July 14). *How to know if art really is your passion?* [Reddit Post]. R/ArtistLounge. www.reddit.com/r/ArtistLounge/comments/14zcptp/how_to_know_if_art_really_is_your_passion/

Osborne, P., & Charles, M. (2015). Walter Benjamin. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2015). http://plato.stanford.edu/archives/fall2015/entries/benjamin/

Pickering, A. (2010). Material Culture and the Dance of Agency. *The Oxford Handbook of Material Culture Studies*. https://doi.org/10.1093/oxfordhb/9780199218714.013.0007

Pleasure, Z. H., Frohwirth, L. F., Li, N., & Polis, C. B. (2022). A Content Analysis of Reddit Users' Posts about Challenges to Contraceptive care-seeking during COVID-19-related Restrictions in the United States. *Journal of Health Communication*, *27*(10), 746–754. https://doi.org/10.1080/10810730.2022.2157911

Pollock, G. (1980). Artists, Mythologies and Media—Genius, Madness and Art History. *Screen*, *21*(3), 57–96. https://doi.org/10.1093/screen/21.3.57

Pošćić, A., & Kreković, G. (2020). On the Human Role in Generative Art: A Case Study of AI-driven Live Coding. *Journal of Science and Technology of the Arts*, *12*(3), Article 3. https://doi.org/10.34632/jsta.2020.9488

Proferes, N., Jones, N., Gilbert, S., Fiesler, C., & Zimmer, M. (2021). Studying Reddit: A Systematic Overview of Disciplines, Approaches, Methods, and Ethics. *Social Media + Society*, *7*(2), 20563051211019004. https://doi.org/10.1177/20563051211019004

ScionoicS. (2023, July 14). *Important ML article about models trained on copyright work being transformative and fair use. The ruling was upheld all the way to the US Supreme Court. Generative models have precedence on their side* [Reddit Post]. R/StableDiffusion.

www.reddit.com/r/StableDiffusion/comments/14z6ueq/important_ml_article_about_models_trained_on/

Searle, J. R. (1983). *Intentionality, an essay in the philosophy of mind*. Cambridge University Press.

Searle, J. R. (2010). *Making the social world: The structure of human civilization*. Oxford University Press.

Smith, M. N. (2017). Intentions: Past, present, future. *Philosophical Explorations*, *20*(sup2), 1–12. https://doi.org/10.1080/13869795.2017.1356360

Sorgner, S. L. (2010). Beyond Humanism: Reflections on Trans- and Posthumanism. *Journal of Evolution and Technology*, *21*(2), 1–19.

Sorgner, S. L. (2022). *Philosophy of posthuman art*. Schwabe Verlag.

Sternsafari. (2023, March 25). *I lost everything that made me love my job through Midjourney over night.* [Reddit Post]. R/Blender. www.reddit.com/r/blender/comments/121lhfq/i_lost_everything_that_made_me_love_my_job/

Verbeek, P.-P. (2005). *What things do: Philosophical reflections on technology, agency, and design*. Pennsylvania State University Press.

Wicaksana, G. D., & Candrasari, Y. (2023). Motives for Using Reddit Social Media on Members of the r/Indonesia Community. *Open Access Indonesia Journal of Social Sciences*, *6*(4), Article 4. https://doi.org/10.37275/oaijss.v6i4.167

Wolfe, C. (2010). *What is posthumanism?* University of Minnesota Press.

Zammit, M., Liapis, A., & Yannakakis, G. N. (2022). *Seeding Diversity into AI Art* (arXiv: 2205.00804). arXiv. https://doi.org/10.48550/arXiv.2205.00804