



Peripherals

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Who is the Artist in the Age of AI?: A Discussion on Creative Labor, Automation, and Knowledge Extractivism

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Abstract

This paper explores the developing relationship between artificial intelligence (AI) and creativity, focusing on how generative tools such as Midjourney, ChatGPT, and Stable Diffusion challenge traditional understandings of artistic production, authorship, and labor. Drawing on the relational-materialist framework developed by Celis Bueno, Chow, and Popowicz (2024) and grounded in Lievrouw's (2014) diagram of mediation, this paper examines the dynamic interactions between technological artifacts, creative practices, and social arrangements. Central to this analysis are the concepts of creative labor, automation, and distributed agency, which help to demonstrate how AI tools function not only as instruments but also as active agents in the creative process. While AI is often celebrated for democratizing creativity and enabling new forms of artistic expression, the paper highlights the ethical and economic concerns surrounding the commodification and automation of creative labor. The concept of "knowledge extractivism" (Pasquinelli and Joler 2021) is used to describe how AI systems are trained on vast datasets of human-generated content, often without consent or compensation, raising critical questions about ownership, distribution of value, and exploitation. In addition, the notion of "mean images" (Steyerl 2023) highlights how AI-generated outputs often reflect statistical averages rather than true innovation. By situating AI creativity within broader systems of data capitalism and epistemic colonialism, the paper challenges narratives of co-creation and calls for a more critical understanding of agency, authorship, and power in AI-driven cultural production. Ultimately, it argues that while AI can augment human creativity, it is not inherently creative. Instead, it functions by remixing and repurposing human labor, necessitating new regulatory frameworks and ethical considerations to ensure a fairer creative future.

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1 Introduction

The emergence of generative AI tools such as Midjourney, ChatGPT, and Stable Diffusion has disrupted the creative industries by offering new ways to produce art, music, literature, and more. These AI technologies have prompted debates about the nature of creativity and the role that AI plays in the creative process. On one hand, AI is framed as a collaborator that complements or even expands human creativity and democratizes access to creative tools. On the other hand, it raises concerns about exploitation, ownership, and the ethical implications of using AI systems trained on huge datasets of hidden human labor. There are differing views on the impact of generative AI tools in the creative industries, with some fearing for their jobs and others arguing that machines will not replace human creativity, but rather enhance it (Bueno, Chow, and Popowicz 2024). The question is, who is the creative one, and how can we even define creativity? In their relational-materialist approach, Celis Bueno, Chow, and Popowicz Bueno, Chow, and Popowicz (2024) shift the focus from traditional definitions of creativity to the relational spaces in which it operates. They argue that creativity is not an exclusive attribute of either humans or machines, but results from interactions between technologies, social practices, and the broader socioeconomic structures in which they are located. The relationship between artifacts, practices, and social arrangements is brought together in Lievrouw's diagram of mediation (Lievrouw 2014), on which they base their relational-materialist approach to creativity and AI. Within this relational space, they focus on these three core concepts: creative labor, automation, and distributed agency. Other researchers also discuss the related concept of creative labor, which refers to the human labor involved in the production of art and culture. As AI technologies increasingly automate creative processes, the role of human creators becomes complicated. While AI can enhance human creativity by enabling faster production of creative content, it also has the potential to devalue human labor by automating tasks traditionally performed by artists, musicians, and writers. Moreover, the commodification of creative labor through AI tools raises ethical concerns about who truly benefits from the creative process and how value is distributed (Steinhoff 2022).

This leads to the concept of distributed agency, where creativity is no longer seen as an exclusively human attribute but rather as the product of human-machine collaboration. Celis Bueno, Chow, and Popowicz Bueno, Chow, and Popowicz (2024) argue that AI systems are not passive tools but active agents in the creative process. However, this distributed agency also conceals the underlying labor dynamics, particularly when AI systems are trained on massive datasets of human-created works. The parasitic nature of AI's reliance on human-generated content for training introduces the concept of "knowledge extractivism" (Pasquinelli and Joler 2020), where AI tools extract and repurpose human creativity and creations without acknowledging or compensating the original creators. This paper studies the discussion of AI and creativity using the relational-materialist framework suggested by Celis Bueno, Chow, and Popowicz Bueno, Chow, and Popowicz (2024) based on Lievrouw's Lievrouw (2014) diagram of mediation and connecting this to other concepts and theories that have been written around this topic.

2 The underlying concept of the relational-materialist approach

Lievrouw's diagram of mediation, particularly as it relates to communication and media studies, visualizes the process by which media technologies, practices, and institutions shape and influence communication. It provides a framework for understanding the role of media in society, focusing on how media mediate relationships between individuals, groups, and institutions. The

diagram divides the concept of mediation into three main components: Artifacts, Practices, and Arrangements. Artifacts are the technological tools and devices used for communication, such as smartphones, computers, or broadcasting equipment. They are the material aspects of media that make communication possible. Practices refer to the social practices or ways in which people use media to interact and communicate. They include behaviors such as posting on social media, watching television, or reading online news. Arrangements are the organizational structures and institutions that shape how media technologies and practices are regulated, distributed, and controlled. It includes the legal, political, and economic frameworks that define the media landscape. Lievrouw's model emphasizes that media not only transmit messages but also mediate social relationships, shaping how we perceive and interact with the world.

3 The Process of Creation in the Age of AI

Is AI a technology or tool that helps us humans be creative, or does it simply exploit human creators? Creative labor refers to the human work involved in producing art, culture, music, or anything creative with a physical outcome. In the past, this work was only done by humans, and creativity was seen as a uniquely human attribute. Today, with the rise of AI tools and image generators, the role of human labor in the creative process has changed, and the question of ownership and who the creative person is has arisen. Aesthetics and creativity have always been considered a uniquely human trait, and “its intractability and complexity have long appeared as insusceptible to algorithmic reduction” (Manovich and Arielli 2021). Algorithms do not create anything new, but remix or regenerate the data on which they have been trained, which is why Manovich and Arielli (2021) call it “computational mannerism”. They wonder how the creative process will evolve in the future, when AI-produced artworks might be considered more aesthetically pleasing and, in that sense, better than human-produced artworks.

Celis Bueno, Chow, and Popowicz (2024) argue that we cannot study only human or technical creativity, but that it is always a relationship or even co-creation. The study of creativity in the age of AI should always focus on the relationships that Lievrouw proposed in her diagram of mediation. They claim that there is always an interaction or relationship between technologies, practices, and the social arrangements within which they function or evolve.

Creative labor for them is an example of the relationship between social arrangements and material practices because all forms of labor are also a form of capitalism and stuck between “a demand for innovation and a demand to adjust to existing institutional structures and patterns” (Bueno, Chow, and Popowicz 2024). Increasing automation is another important part of social arrangements, but connected to artifacts because it is directly linked to the capitalist nature of many countries and cultures, and has to do with the technology itself. Many AI tools can now automate large parts of the creative process, allowing for faster (content) production and greater accessibility, but also devaluing human labor by reducing the role of the creator to that of an editor or curator. The automation of creative tasks raises important questions about the commodification of creative labor, and Steinhoff (2022) discusses the rise of synthetic data and how this automation threatens the connection between creative output and human input. Looking again at social arrangements and practices, AI-generated output and content may lead to a threat to the value of human-created art, as machines and tools become capable of generating content on a scale far beyond what human artists can produce. Creative labor may no longer be considered valuable in the future, and the human role will be merely that of an algorithmic function or prompt engineer within a larger system of cultural production (Steinhoff 2022).

The commodification of creative labor is, like I pointed out earlier, is closely tied to the

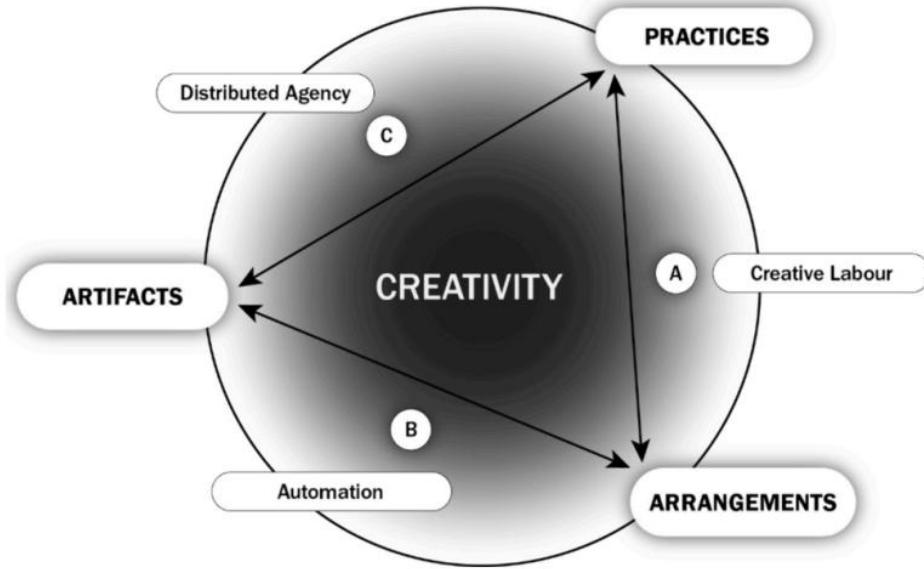


Figure 1: Diagram of mediation combined with AI & Creativity (Bueno, Chow, and Popowicz 2024)

political economy of AI. Pasquinelli and Joler Pasquinelli and Joler (2020) state that AI systems rely on big datasets of human-created content (like designs, paintings, writing or music) to train their models. This creates a scenario where human creativity is systematically harvested and repurposed for profit by tech companies, often without the creators' knowledge or consent. As AI continues to automate creative processes, the creators of original works are left out of the value chain, while the corporations that control the AI tools get the financial benefits through marketing and profiting from them. In their paper, they explain that they do not like the term artificial intelligence or anything similar and argue that the “creativity of machine learning is limited to the detection of styles from the training data, and then random improvisation within these styles. In other words, machine learning can explore and improvise only within the logical boundaries that are set by the training data. For all these issues, and its degree of information compression, it would be more accurate to term machine learning art as statistical art.” (Pasquinelli and Joler 2020). This would mean that, by their definitions, AI is not creative, and it is not really a co-creation between humans and AI tools, since human creative labor has been exploited to enable any AI to produce creative or artistic output. We have to ask ourselves who truly benefits from the creative process. The redistribution of creative agency and labor presents a direct question or even threat to traditional understandings of ownership and creative labor.

4 Who is the “Creative Agent”?

In the context of AI and creativity, the concept of distributed agency challenges the traditional notion of creativity as an exclusively human attribute. Celis Bueno, Chow, and Popowicz Bueno, Chow, and Popowicz (2024) argue that AI tools, far from being passive instruments, actively participate in the creative process, reshaping how creativity is produced and understood. This shifts the focus from a human-centered model of creativity to one where agency is distributed between humans and machines. They explain this distributed agency through the diagram of mediation from Lievrouw Lievrouw (2014) that I mentioned earlier. Distributed agency, or generally the discussion of agency, falls into the relationship between material prac-

tices and technological devices in the diagram. In traditional creative processes, the artist's intent and inspiration were seen as central to the production of art. However, in an age where AI tools can autonomously generate creative outputs, the lines between human and machine agency become blurred. AI tools like DALL·E and Midjourney are not only tools that execute the commands of their human users; they are active agents that contribute to the creative process by making decisions, combining elements, and producing outputs that may not align with the human creator's original vision. Hayles (2023) introduces the concept of technosymbiosis, where humans and AI collaborate symbiotically, with both entities contributing to the creative process. In this framework, AI is not just a facilitator of human ideas but an autonomous actor with its own form of agency. This reframing of agency challenges traditional ideas of authorship and creativity, suggesting that the artistic output of AI systems is the product of a distributed network. She claims that "when humans, nonhumans, and computational media interact, they form cognitive assemblages, collectivities through which information, interpretations, and meanings circulate" (Hayles 2023). In this assemblage, the decision-making and creation process is distributed, and the issue is not whether an AI has agency, but how it is deciding, based on what and what effects it will have on humans and other technologies or media (Hayles 2023).

Hertzmann (2018) also discusses who the owner or creator in the relationship between creativity and AI, but he has a more positive and agential view of AI in general. He said that we have always used tools or technologies to communicate or create art, whether it is a brush and a canvas or a camera. However, he believes in artistic creation as a social practice and that humans always have agency in the creative process, even when working with AI. The credit belongs to the human as the artist because we are the ones who train algorithms, making us the mastermind behind AI-generated creations. From this perspective, while AI may participate in the creative process, it does so as an extension of human labor, rather than as an independent agent. Hertzmann (2018) claims that "computers cannot be credited with authorship of art in our current understanding", but that this might change in the future of AI tools, and considering that his essay is from six years ago, maybe his view would be different now.

Generally, the concept of distributed agency is further complicated by the fact that the AI platforms and technologies are mostly controlled by large companies, which own the algorithms and the datasets that train and power these tools. Humans and machines may be co-creators in some use cases and creative processes, but we should not forget the economic power relations that come with these tech companies and AI tools. Human creators, whose works are used to train these models, are often left out of the value chain, which raises important questions about ownership and ethics in the age of AI. To summarize the discussion about creative labor and automation, Celis Bueno et al. Bueno, Chow, and Popowicz (2024) state that "AI automation and labor are not easily differentiated but rather intermeshed in ways that complicate clear analyses regarding the origins of value or the location of creative practices".

5 Knowledge Extractivism as the Foundation of AI Tools

As discussed in earlier sections of this essay, AI tools are trained on big datasets, which raises concerns about creative labor but also about the exploitation of human creativity. Even if we see AI tools as co-creators, the underlying and hidden labor behind the technology often remains obscured. The outputs of AI are often the results of uncredited labor by human artists, writers etc., whose works and data have been harvested without consent. The extraction of creative labor is further critiqued by Steyerl (2023), who introduces the concept of "mean images" to describe AI-generated visual outputs. These images are statistical averages of the data used to train AI models, resulting in works that are derivative rather than truly

original. Steyerl Steyerl (2023) argues that AI tools do not produce images based on actual references, but instead rely on stochastic discrimination to create hallucinated approximations of artistic works. “These renderings represent averaged versions of mass online booty, hijacked by dragnets... They replace likenesses with likelinesses” (Steyerl 2023). In this sense, AI tools not only fail to innovate but also commodify creativity by reducing it to statistical probabilities. This process devalues human creativity by masking its origins in data extraction. According to her, AI has a parasitic nature as it relies on human-generated content and scrapes every available online data. This content is then used to train AI models, which produce new works that are sold or distributed for profit, while the original creators receive no compensation or recognition. This creates a situation where human creators are systematically excluded from the value chain, while the corporations that control the AI tools benefit financially.

This exploitation of human labor and their data is a part of a concept called “knowledge extractivism”, a part of Pasquinelli and Joler’s Pasquinelli and Joler (2020) Nooscope Manifesto mainly referring to this exact extraction of human-generated content and repurposing it for their own purposes within AI systems, for example to transform it into new forms of creative output. They argue that AI’s reliance on large-scale data scraping mirrors the dynamics of colonial exploitation, where resources (in this case, human-made creative works) are extracted from marginalized creators and repackaged for profit by tech companies. This form of exploitation is intrinsic to the data economy, where AI models compress vast amounts of creative knowledge into statistical models that are then used to generate new outputs. They state that “the modern project to mechanise human reason has clearly mutated, in the twenty-first century, into a corporate regime of knowledge extractivism and epistemic colonialism” (Pasquinelli and Joler 2020).

Moreover, AI’s exploitation of human creativity aligns with broader concerns about the political economy of cultural production in the age of data capitalism. Steinhoff Steinhoff (2022) argues that AI-driven synthetic data further disconnects creative labor from its human source by creating automated systems that produce content without human intervention. This raises significant concerns about how AI tools, trained on human creativity, can undermine the value of original works while reaping profits for corporations that control the AI supply chain. By situating AI within this extractive economy, it becomes clear that while AI tools may augment creativity, they do so by commodifying and redistributing the value of human labor. This leads us to question how AI reshapes creative industries, particularly regarding the automation of creative labor and the redistribution of value within the AI-driven creative economy.

6 Conclusion

In this essay, I looked at different views on the relationship between AI and creativity and how we can define new roles within the creative process. This interconnected relationship between human/user and technology as described by Celis Bueno et al. Bueno, Chow, and Popowicz (2024) linked back to Lievrouw’s Lievrouw (2014) diagram of mediation, as distributed agency can be seen between “practices” and “artifacts”, and automation between “artifacts” and “arrangements”, and creative labor between “practices” and “arrangements”. Connecting the question of creativity within AI tools with Lievrouw’s ideas was a very interesting link, because I agree that generative AI is part of our social arrangements, but also of how we use it and how we use what AI tools enable. This threefold way of looking at generative AI moves away from a binary understanding of human/user versus technology or machine creativity. As generative AI tools evolve, they are not only changing creative practices but also influencing societal perceptions of creativity, ownership, and agency. The concept of distributed agency got me thinking about ownership and copyright of creative output. Did the creation come about

because of human creativity or because of the trained AI model? There is always a relationship and interaction between the human/user and the technology, and the understanding of creativity changes as a result.

On the one hand, AI is framed as a collaborator that complements or even extends human creativity and democratizes access to creative tools. On the other hand, concerns are raised about exploitation, ownership, and the ethical implications of using AI systems trained on massive datasets of hidden human labor. Both sides offer valid and important arguments, and in the process of researching this essay, my view of AI art and these tools as a co-creator has changed a bit. I mainly saw the benefits of being able to create anything I could imagine, but I did not think as much about the issues of ownership and the benefits only to the large corporations that own these AI tools. In general, I think that AI can function as a co-creator, but it is not creative itself, because it can only remix the human-generated input data and create these statistical renderings, as Pasquinelli and Joler Pasquinelli and Joler (2020) and Steyerl Steyerl (2023) put it. For the future and our (creative) use of AI, we need to find improved regulations and ways to create better value chains. But how AI and creativity will evolve and who will have the agency will only show in the future.

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