Kępińska and Wiśniewski's investigation into the digital landscape of the Metaverse and Artificial Intelligence ignites an important discussion on the implications of these technologies for the artistic creation process. Observing recent technical developments in machine learning, it's evident that the potential of AI extends beyond mere tools to the realm of authorship, challenging the traditional notion of what defines an artist. The art world responds to AI's emergence as both a tool and a creator with a mix of anticipation and concern, prompting a reevaluation of artistic expression and its future. Central to this discussion is the issue of authorship—when an algorithm generates art, who is recognized as the creator? This question is not merely academic but impacts the legal and ethical frameworks regarding copyright and ownership in digital art.

The Metaverse is a boundless canvas for imagination, where art transcends traditional forms, transforming it into an interactive experience. Art is no longer confined to physical spaces or traditional formats but evolves into an entity engaged with on multiple sensory levels within a virtual realm. This shift marks a significant change in how audiences interact with art, moving from passive viewers to active participants in the art narrative. Artists use VR and AR to create immersive environments that go beyond viewing to experiencing art. In such spaces, viewers can interact with the art in a hyper-real manner, such as 'entering' a painting and influencing its form and story, thus redefining conventional art exhibits into interactive spaces that cater to personal exploration.

My personal experience with Metaverse, particularly in my immersive theater project, offers a unique perspective. In the project entitled “The Meeting,” I bridged the realms of art and technology, showcasing the profound capabilities of the Metaverse in facilitating new forms of artistic expression. In this endeavor, viewers are not mere spectators of a theater play, but active participants, like in Grotowski’s participatory theater, assuming the roles of actors and interacting with holographic recordings of other actors. This interactive component is facilitated by advanced machine learning methods that generate volumetric captures of actors, creating a dynamic and responsive environment. The experiment pushes the boundaries of traditional theater, allowing for a more intimate and immersive experience. The use of holography and AI-generated content blurs the lines between reality and fiction, challenging the audience to engage more deeply with the narrative and the characters. This project serves as a testament to the potential of Metaverse in redefining artistic mediums, offering a glimpse into a future where technology and art coalesce to create experiences that are not only visually stunning but emotionally resonant.

The Metaverse also removes traditional creative limitations, empowering artists to explore beyond physical and conventional barriers. This freedom allows for the exploration of extraordinary, surreal, and innovative ideas not possible in the physical world, which not only pushes artists to reconceptualize art creation but also challenges audiences to expand their understanding of art's possibilities. With its expansive digital landscape, it also introduces art to newer, younger audiences who are at home in the digital and gaming worlds. These platforms offer an inviting avenue for them to engage with art, potentially cultivating a cohort of art aficionados and collectors who may not be inclined to visit physical galleries.

The Metaverse and generative AI are intertwined concepts at the frontier of digital innovation, each magnifying the capabilities of the other. As collective virtual shared space, the Metaverse is the perfect playground for generative AI's potential. Here, AI algorithms can utilize vast amounts of data to create and manipulate complex digital environments, generating content that is both responsive and adaptable to user interactions. This symbiosis allows for dynamic and evolving virtual experiences that closely mimic the unpredictability of the real world. Generative AI can produce not just static objects or scenes but entire ecosystems that learn and grow, providing a level of immersion that is essential for the Metaverse to thrive. Whether it’s for creating realistic non-player characters, designing intricate landscapes, or crafting personalized narratives, generative AI stands as a cornerstone technology that will enable the Metaverse to realize its full potential as an expansive, interactive, and ever-changing universe.

In Metaverse and beyond, AI tools will change the role and the process of artistic creation. This process is already on its way, as exemplified by the sale of the "Edmond de Belamy" portrait, generated by the Obvious collective's Generative Adversarial Network. A significant moment in art history, the sale raises questions about the definitions of art and creativity within the context of AI. It ignites a discussion that not only acknowledges AI's technical abilities but also confronts the concept of art authenticity, or, as Walter Benjamin called it -- the 'aura', a notion denoting the originality of artworks made by human hands as compared to an electronic copy. This discussions probe whether AI-generated works can have such an 'aura' and what that signifies for the future of artistic creativity and its value.

The effectiveness of AI in mimicking artistic styles and techniques stands against its debated capacity to capture the emotional resonance and cultural significance typically attributed to human-made art. This raises a fundamental question in the debate initiated by Kępińska and Wiśniewski: what is art's essence? can art be reduced to visual and technical attributes, or is it the embodiment of human experience, creative process, and lived experience of the artist and the spectator? This dimension of art, intrinsically tied to the human condition, remains a contested territory for AI, as critics suggest that the essence of art derives from human experience‚--an aspect that AI has yet to convincingly replicate or interpret. The critical question is whether creations by AI, without the human touch or context, can possess the same value and emotional depth as those by human artists.

One particular facet, missing in Kępińska and Wiśniewski’s discussion of AI creation for Metaverse, is its ability to translate human physiological data into digital artworks. This melding of technology with human biology aligns with the goals of abstract expressionists who aimed to portray visceral emotions and subconscious elements on canvas. These pursuits, once limited by the physical and technological constraints of their time, now have the potential to be actualized in the Metaverse. With sophisticated algorithms and machine learning, AI is at the cusp of creating art that not only represents but also interacts with and reflects human physiological responses. This advancement could redefine art as a form of expression, offering a truer reflection of the artist's internal state. In the Metaverse, such art can be encountered in a fully immersive, multi-dimensional setting, which may foster deeper empathy and insight into the human condition, enriching our comprehension of both the individual's and the collective's emotional and cognitive landscapes. The ambitions of abstract expressionists to visually represent the subconscious are increasingly attainable, not through traditional canvases but within the Metaverse's boundless realm. Here, the unconscious is not merely portrayed but can be navigated and felt, merging the digital with the biological and transforming the fundamental nature of art. As AI evolves, it opens up the possibility for widespread artistic expression, heralding a future where art is completely accessible and its creation becomes democratized.

My ongoing project, "BrainArt," aims to harness these innovative technologies. It is an ambitious endeavor that seeks to visualize the intimate dialogue between various physiological markers and external stimuli, such as music in a symphonic concert setting. Participants, equipped with a range of sensors including a brainwave reader, HRV monitor, GSR sensors, and EMG detectors, along with a virtual reality headset, can experience real-time visualizations of their emotional and physiological responses. These responses, triggered by elements like crescendos, decrescendos, and melodic interplays, are translated through advanced mathematical models into vivid visual representations. Each visualization is a unique amalgamation of shapes, colors, and light, algorithmically generated and performed within a universal Turing machine framework. This minimal, artistically guided intervention by the algorithms allows for the emergence of a personalized virtual world, different for each participant. The goal of "BrainArt" is to provide an unparalleled window into the participants' own subconscious and emotional states. By harnessing a comprehensive array of physiological signals, the project aspires to offer insights into the nuanced and often elusive world of human emotions and physical reactions. The project, still in development, promises a groundbreaking exploration of how technology can intersect with art to create a deeply personal and transformative experience. This exploration not only challenges our understanding of art but also invites us to reconsider the very nature of our emotional and physical selves in the digital age. "BrainArt" represents a step towards a future where art is not only a reflection of human experience but also a tool for understanding and interacting with the complex tapestry of human emotions and physiological states.

In addition to Kępińska and Wiśniewski’s discussion on AI as a tool for professional artist, it is also important to stress that the widespread access to AI tools could foster an expansion of artistic expression, transcending traditional obstacles like skill level, educational background, or resource availability. This change suggests a potential reevaluation of art's worth in an era of abundant creation, and a diminishing line between creator and spectator. As AI-generated art becomes more prevalent, it may disrupt established concepts of authenticity and originality in the cultural domain, but it will also unleash the eruption of creativity among non-artists, similarly to the role YouTube played in unleashing film, podcast and news making among non-filmmakers and non-journalists.

Kurt Vonnegut, a writer with a long-life appreciation for arts, offered a timeless yet down to earth perspective on the essence of art creation: "Practicing an art, no matter how well or badly, is a way to make your soul grow, for heaven's sake. ... Do it as well as you possibly can. You will get an enormous reward: You will have created something." This statement suggests that art's value is not contingent on its method and quality of production but on its capacity to satisfy a deep human need for creation. Whatever happens in the future, it is clear today that we stand at a pivotal juncture in history, with machines set to take on creative roles previously believed to be solely human, and yet the same machines set to enable humans to express themselves creatively without a need for innate talent and years of training.