The Artist in the 21st Century

Ranging from science, technology, engineering, and mathematics (STEM) creatives to painters and filmmakers, artists of all kinds must find ways to make a name for themselves, where the questioning of their identity remains a constant. When it comes to how individuals collaborate—or choose not to—with Artificial Intelligence (AI), every field of creation involves explorative, creative, and collaborative mediums where the creator must learn to manipulate what's in front of them. Unlike the natural world, the digital age challenges traditional concepts of authorship and identity. The repeated cycle of individuals attempting to make their work mean something remains true in the world of AI. More importantly, it is the development of understanding how art is affected by AI that tests the position of the artist. Creatives do not have fixed identities besides the one they are trying to understand. Due to the concept of art being a fluid and ever-changing field, an artist may be many things while simultaneously existing as nothing. Whether it is to be noticed or separated from AI, an artist is often seen as one who has to keep fighting for their rights in an attempt to claim true authorship of their work.

The debate on whether artists should use AI and how technology changes their role varies depending on the subject in question. In today's age, it is typically assumed that many people use computers as a source of efficiency to relieve themselves of additional labor. Peter Kugel, a former computer science professor at Boston College, mentions that "another reason [artists use computers] is that [they] may help one to obtain a better understanding of the aesthetic qualities of artworks and of the processes by which they are produced. It is this [reason] that seems…to be the main potential merit of computers for artists…" (Kugel 137). In this context, artists are seen

either as machines that use technology to pump art out as products or they are seen as seekers, which has quite commonly been the case.

Artists, even in the age of AI, are explorative beings. Yet creative individuals go beyond simply seeking to understand. Their purpose is to create and furthermore to be remembered. Philosopher and Catholic priest Robert Sokolowski states, "...artificial intelligence is possible because we can turn our attention…toward the word, and instead of analyzing its grammatical…composition, we can begin to… replace its letters by a series of binary digits…we can reduce it to strings of ones and zeros" (Sokolowski 54). In this way, we are still artists when interacting with AI — whether it be an oil on canvas painting or a rendered version developed in Blender, humans are still learning how to manipulate, understand, and advance their tools. They break down their platform to build upon it, and because a new world has entered their atmosphere, creative individuals constantly find new ways to make use of what they have. Artists used to go to the store for a better pen to sketch with, and in turn, they now click "update" for a new software to work with. Through the perspectives of Kugel and Sokolowski, the purpose of artists remains consistent: to create because they are needed.

What is equally as important as creating is the ability to remain, to be remembered in a world that easily forgets. Sokolowski explores the idea of remembrance through observations of the past and explains how "we are already replaced by the written word. If we find written records in the ruins of an ancient city, we do not think that the speakers in that city were obliterated as speakers by the documents or that their subjectivity was destroyed by them…" (Sokolowski 48-49). Ancient civilizations were able to talk to us then. Now with the progression of AI, we can leave more of a footprint to still communicate with our current friends as well as the following generations. In this way, artists can use AI to help humanity remember our art and

not forget it—or their creators. Creatives are staples of their art; even within the digital age, they are built to stay. American artificial intelligence theorist Roger Schank mentions how "Until the day that there are enough teachers for each student to have their own, we must look to the promise of such individualized instruction being delivered via computer-based educational system[s]" (Schank 12). This stresses how humanity is filled with this prolonged and continuous sense of hope, as well as how AI amplifies this hope. There is a remaining need for creative individuals and their collaboration with technology.

This reconsideration of an artist's identity in the growing technological world allows for the restructuring not only of that role but also of the process behind art. Creatives are invested in the process of their art, but they too, are processes of art. Australian artist Jon McCormack explains that "Human artists plan and evaluate their artwork as it proceeds; they do not necessarily wait until the final work is finished (as the audience must) before considering its aesthetic" (McCormack 137). This perspective can be tied to how the task of the artist without AI involves more patience and how, in turn, the ongoing advancement of AI's efficiency diminishes the virtue of patience. Computer softwares does not ponder their existence as in-depth as we do (or even at all) unless you ask a software that mimics the characteristics of a human, such characteristics that we have taught them. Though it can be argued that AI is a work of art or a work in progress, artists and their art are closer to the definition of art than a coded program that now runs off its own code, where the lack of intellectual thought has nearly disappeared. Researcher and professor Robert Austin goes more in-depth with the concept of art as a process and adds that "Like product developers or drug researchers, artists make new things and make decisions based on the benefits and costs of producing original outcomes…we could watch the creation of a new metal sculpture from start to finish, unlike the creation of a new drug." (Austin

1508). Non-artists observe art, thus allowing the artist to become an observable character. This accentuates how artists themselves are a process and work within the making of their own artistic process. On the contrary, AI is harder to track unless the code is unfolded for the audience, making digitization less of an observable art and more of a fast-acting medicine for many.

Following the point of process and patience within art, there is also the development of a pathway to reward. AI increases the desire for instant gratification, which in turn shifts the artist's position into a more machine-like individual to match that desire for reward. Doctor and art specialist Holle Humphries goes on to elaborate on the role of art between the artist and the audience. She highlights how "The expression theories of art shifted attention to the artist and audience and thus are considered subject-centered… Leo Tolstoy believed that art should be a vehicle by which the emotion experienced by the artist at the time of creation is transmitted to an audience, so that the audience can experience that emotion as well" (Humphries 14). The language in this quote is more mechanical and technical, with words such as "vehicle" and "transmitted" that give an almost artificial tone to Humphries's thinking but shows that creativity can be found and explored in nearly every area.

Humphries's article goes on to describe how computer softwares allow the artist to produce two kinds of images—computer-generated and computer-assisted. She states, "Computer-generated images are created when…the artist writes a script…and the computer executes its instructions without the artist's intervention. In contrast, computer-assisted images…permits the artist to work interactively with the computer" (Humphries 16-17). The former shows a strong sense of authorship and almost a chain-of-command-like relationship between the artist and the computer. Before the age of AI, this hierarchy was established based on the author's tools: a pen, a paintbrush, etc. Now with computers, this hierarchical line is

blurred—quite literally from the magic pen brush tool iPads have nowadays. In terms of the latter from Humphries' quote, there is more of an interactive approach that involves contribution from both parties, where the artist is more than an enabler. Above all else, humans are seen as collaborators. Yet there still remains the ongoing question of authorship. "...much of what the computer 'does' to aid the artist in creating and manipulating images and objects is conceptually based upon mathematics, remains invisible to the eye, and generally is not apparent in the resulting artwork" (Humphries 21). Therefore, the artist is a creative individual who holds ultimate authorship. The computer's artistic process—such as mathematics and programming—is not explicitly and outwardly shown in the end result, logically concluding that the majority of authorship goes to the artist, the creator of the created. The fellow creative is using AI as a tool, similar to how a writer uses a pen to craft a story. However, when wanting to encompass the artwork in its entirety, the phrase "Not apparent in the resulting artwork" overall decreases the value of the art and the artists. There ends up being a lack of meaning, an invisibility that lies beyond the surface. As a result, individuals in the humanities become ghosts of the common stereotype that what is not seen is not always acknowledged.

English professor Ken Lindblom describes his perspective and thought process on what exactly he feels the artist's role is within technology. He states, "Humanists have an important role to play in [AI] development. Scientists and engineers need much greater input from the humanities…to infuse AI research and development with the human aspects…of this growing technology" (Lindblom 74). This pushes for a deeper need for those in the humanities, not only in a collaborative role with AI but also between the STEM fields as well. Lindblom goes on to explain how "Fei-Fei Li, Stanford and Google researcher, specifically calls for more input from humanists, so engineers can design software to 'work more with people.'" (Lindblom 74). When

looking at all the different fields of study, artists are people-oriented and serve as enablers for interaction, conversation, and exploration of the mind. In this relationship between AI and artists, artists are enablers who attempt to have AI understand the current world while deconstructing their own. Author and former Conceptual and Information Arts professor Stephen Wilson expresses his interest in the relevance of artists engaging with AI as well. He highlights, "My purpose here is to stress to visual artists the importance of AI research and the need for more of them to participate in it since at present AI research is dominated by those concerned with scientific, engineering, commercial, and military applications" (Wilson 15). Wilson emphasizes this idea of how artists must now take into consideration their task in other branches of study, such as STEM fields, due to the notion that art is a completely separate study. But as technology advances, art overlaps with other areas and vice versa. Not only have the humanities struggled to figure out their place in the art world, but now they must attempt to navigate how they fit into other worlds as well. This amplifies the idea that artists do not hold a fixed identity and how they provide for and interact with various aspects of our world. This, in turn, allows creatives to get their work and knowledge out into specialties that lead them to ultimate exposure and thus more recognition in order to stay remembered.

What is fascinating about our minds and the capacity of AI is our ability to envision just how far we can take collaboration between the two. Wilson explores this idea by explaining how "Developments in AI might permit artists to make artworks with human-like sensibilities… Imagine, for instance, a sculpture that solicits and understands comments from viewers and responds in accordance with a personality provided to it by its sculptor" (Wilson 15). This stresses how AI changes the response art receives based on how the artist manipulates and maneuvers the boundaries between technology and art. If a sculptor did talk back to us with the

personality of the artist, this would have meant the process behind the artistic creation had to involve the consideration of AI, its users, and the impact of fine art in modern society. Creatives have to think about how much AI is necessary so that it won't completely take away from the culture of art. However, the ongoing fear of AI overpowering us is countered by the knowledge of language and limits—physically, mentally, and mathematically. Wilson continues his point and explains how "Natural languages…are considered by some researchers as the most distinctive manifestation[s] of human intelligence…computers so far developed can deal with such languages to only a very limited extent" (Wilson 18). Because computers still have a decent amount of development to achieve, artists in this context can be seen as the teachers of technology. This makes individuals in the humanities field fluid, flexible, and more adaptable to the ongoing changes in the digital age. Senior Programmer Robert Duisberg believes that "…*systemic* [grammar] is apparently not common in computer science applications [and] differs from phrase-structure and transformational grammar…It is an outgrowth of concerns in anthropology and sociology…rather than mathematics or formal logic" (Duisberg 12). Humans have a diversity component built into them—culture, environment, childhood, etc—that AI tends to lack without the keen eye and intellect of the human mind. Both creations are structured differently. People invest in AI to initially teach technology how to function so that technology can advance the artists' creations. If people want to invest their time and currency into AI, then their desirable end goal with their artwork must be seen in a logical way that involves art as a product. However, this thread also defines the artist as a product. If one markets their art, they also market themselves.

In certain contexts, artists are bound to be machines. But in every context, they are human beings. They contain a capacity to feel, a characteristic computers still lack

today—authentic empathy and innate emotional connection. Professor Robert Duisberg feels the role of creative individuals is to understand the structure of feeling within our creations. He states, "As artists and scientists…we must try to understand the structure of feeling, for it is only by and with such feelings as wonder and love that we grow to create within our individual mental lives the world as we interpret it..." (Duisberg 7). This reiterates the relevance of fixed and unfixed definitions and how creative individuals are constantly searching for a sense of comprehension. Their fixed identity appears to be one that never stays put, figuratively speaking. An artist is and should be—with the ongoing advancement of AI—a fluid character owing to the idea that AI is in a constant state of development. Yet without directional intention, there is no purpose. Researcher and professor Tracy Henley follows this idea further by stating how "humans have intentionality, and machines get finished off with the assertion that, 'Whatever else intentionality is it is a biological phenomenon'" (Henley 46-47). The majority of her article highlights that because machines do not have biological brains, they, in turn, do not have intentionality, thus reiterating the importance and relevance of the human role in technology. AI is everything human without the "human."

It's interesting to note how, in a variety of these sources, artists are seen as experimenting with AI similar to the way they do with non-AI art. In one way, they are scientists, teachers in another, learners, listeners, machines, products, creations of everything, and existing as nothing. But despite all this, they are something. They are needed in the humanities as well as in the STEM fields. Creative individuals provide for humanity and are an integral part of society. Whether it be STEM creatives, painters, or filmmakers—all art forms and genres—seek their identity while making a name for themselves. With or without AI, every field of creation revolves around exploration, collaboration, and imagination. The recurring cycle of people

attempting to make their work mean something remains strong in the digital age, along with artists exploring and learning how the development of AI affects their position in the world. Nonetheless, the various interpretations and answers to what that exactly looks like result in a never-ending search and exploration of identity.

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