



MASTERARBEIT | MASTER'S THESIS

Titel | Title

Artificial Assistance or the Art of losing something important?
Investigating the usage of the image generating AI Midjourney
under the framework of Hannah Arendt's action-ontology of
labor, work and action.

verfasst von | submitted by
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angestrebter akademischer Grad | in partial fulfilment of the requirements for the degree of
Master of Arts (MA)

Wien | Vienna, 2024

Studienkennzahl lt. Studienblatt | Degree
programme code as it appears on the
student record sheet:

UA 066 941

Studienrichtung lt. Studienblatt | Degree
programme as it appears on the student
record sheet:

Masterstudium Philosophie

Betreut von | Supervisor:

Wessel Reijers BSc MSc PhD

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Abbreviations:

Literature abbreviations:

As this thesis draws from both the English original of Hannah Arendt's *The Human Condition* (1958) as well as her German translation *Vita Activa: oder Vom tätigen Leben* (1960), this thesis will use the following abbreviations when quoting either of the two works.

VA: *Vita Activa: oder vom tätigen Leben*, quoted Edition printed in 2019.

HC: *The Human Condition*, quoted Edition printed in 1998.

Technical Abbreviations:

AI: Artificial Intelligence

LLM: Large Language Model

Introduction

“/imagine: Vienna in the style of Starry Night”. That was the simple command the generative Artificial Intelligence (AI) Midjourney used to create the following image:



Image 1, by Daniel Aaron Prem via Midjourney (2024)

Thanks to AI, creating paintings, songs, or full videos has never been so easy. The emergence of this complex and constantly improving technology has led to questions of authorship, inspiration, and theft, or the very nature of art. Instead of investigating this situation from the standpoint of attempting to define art, this thesis takes the perspective that we create art regardless of our lack of a coherent definition. The intuition here is that it might not matter what art is, but that it matters to us what the act of creating art is doing for us. While the question of what art remains unanswered, it has never stopped us from continuing to create and consume art.

Approaching the topic from the viewpoint of action brings a distinct advantage in the context of the dominating discourse which is ever-changing with technological advances. For example, most ethical concerns regarding the way that AI uses the art of humans can be addressed by changing the way that the datasets are curated and how the artists behind them

are compensated. Addressing this topic from the perspective of what we as humans gain from creating art and if AI impacts this process, we can determine arguments that stay relevant in the context of a rapidly changing and evolving technology. Is it a mere tool that helps us, or is it taking away a vital aspect of why we do it in the first place? This leads to the initial research question:

“Is generative AI a tool in the same ways that brushes and pens are, or is generative AI impacting the very act of art creation itself?”

A key question for this thesis might thus be: is generative AI a new tool like a brush or something more disruptive? The Cambridge Dictionary defines a tool as either a) “a piece of equipment that you use with your hands to make or repair something” or b) “something that helps you to do a particular activity” (*Tool*, 2023). Intuitively, such a broad framing could easily include art-generating AI. A person has a vision and uses AI to help bring this vision to life. Yet it seems counterintuitive to think that the brush used by Van Gogh to paint *The Starry Night* in the same category as Midjourney and its take on the iconic artwork.

Even before AI, tools impacted artists and their styles. In her essay „*Il pennello artificioso*‘ – *Zur Intelligenz der Pinselführung*“, the art historian Nicola Suthor explores how the role of the brush was long ignored in the history of art theory and its impact on the piece and how the tool itself defined the realm of possibilities of what the artist could translate from their imagination into reality (Suthor, 2006). Thus, one could ask if generative AI has the same impact as a brush or if this undersells the AI. The intuition is that if the tool keeps performing more and more tasks, or aspects of tasks, that generally fall to the human agent, the tool begins to take something away from the agent. While this effect of performing more and more tasks for the human agent is often the intended result of new technology, it does not mean that this is inherently beneficial for the human agent in every context. This leads to the approach of this thesis, inspecting AI art from the perspective of action.

The intuition is that if AI does more or different things than common artistic tools do, it impacts the human act of creating art. For example, what if AI makes creative decisions, thus making human creativity less relevant? In his paper “*Imagination and the Infinite—A Critique of Artificial Imagination*”, the philosopher Yuk Hui argues that imagination is already inherently artificial as “Imagination is to make present something that is not yet present to me.” (Hui, 2023, 7). As the imagined is neither fully realized within us nor the world, imagining

something seems to have something artificial to it already. One could argue that AI is just mimicking something we do either way, and now, we just do it with a new tool. However, that could mean that one might need to distinguish between human creativity and that of an AI, thus attempting to differentiate between the two without completely denying AI the status of a creative entity (Hui, 2023).

This hints at a general paradigm change within the philosophy of arts, as AI evokes questions of ownership, ethics, and ontology that differ substantially from those of thinkers like Plato, Kant, Hegel, or Adorno. While Plato's thoughts on art being mimicry, or Adorno's thoughts of art as resistance (Liessmann, 1999), are productive ideas through which to analyze art generative AI, they did not have to concern themselves with the idea of a non-human entity producing art, while still being reliant on being "activated" by human agents.

Other art theories emphasize the role of the spectator, meaning some theories should not struggle to see works by AI as art, or at least potential art. The idea of concept art sees art as a phenomenon emerging from spectators interacting with the idea of something, transcending art from the physical to the theoretical (Hartley, 2024). Famous examples of conceptual art include Marcel Duchamp's *Fountain*, in which he placed a urinal into a museum, thus asking the question if an artist can elevate an everyday object into art by simply declaring it as such (Cray, 2014; Hartley, 2024). Cray argues that concept artworks "[...] are not ideas but artifacts imbued with ideas." (2014, 235). Others, like Roland Barthes, argued that the author is no longer the entity imposing a work's true meaning but that the recipient is the point where all unifies into an artwork (Barthes and Heath, 1977). In his 1934 publication *Art as Experience*, John Dewey located art in the experience between artwork and recipient, while the essay *Eye and Mind* (1964) by Maurice Merleau-Ponty highlights art as the phenomenological process of realizing oneself as seeing and seen. These and the many other theories allow a perception of art that at least intuitively allows for AI art as they move the focus onto the recipient. On the other hand, there are also art forms that, at least for now, are less concerned with AI art: performance and installation art.

Performance artists like Marina Abramović create settings where viewers are made to be part of the artwork or even collaborators, but the distribution of action and responsibility is still evident. If we take Abramović's endurance pieces, *The Artist is Present* and *Rhythm 0*, one can see how the spectators were part of the performance. In *The Artist is Present*, Abramović sat silently for days while visitors were allowed to sit opposite to her and establish eye contact while not touching her or talking to her (Marina Abramović. *The Artist is Present*. 2009 |

MoMA). *Rhythm 0* had her standing in a room for six hours, with visitors being allowed to do anything they want to her with tools ranging from brushes to a gun¹ (*Marina Abramović | Rhythm 0*). Especially in *Rhythm 0*, the audience played a vital part in the performance. Graf writes that some saw this as a response to the criticism that the emerging art form of performance art was exhibitionistic and self-centered, as *Rhythm 0* entirely depended on what the audience would do (Graf, 2022). So, while we can declare the audience as part of the performance, maybe even as performing artists, Abramović is the one who conceived the artwork and who should be accredited. The aspects of the performance over which she had no control (how people would react) were intended as such by her. Even in a highly complex scenario like that of Marina Abramović, there appears to be no dilemma like that of AI-generating art, because at most the question is which human agent was to what degree responsible for the artwork.

Other art forms, like installation art, face less of a problem because they tend to highlight the AI aspects of their work rather than use to imitate human art. Installation art strives to immerse recipients and enable them to take different perspectives toward the artwork, often combining different mediums and materials (DeGuzman, 2023). The artist Refik Anadol, for example, works by projecting giant visualizations of data into rooms that embalm the viewer in ever-changing patterns, shapes, and colors (Anadol, n.d.). As installation art seeks to create a sort of experience that the viewer can be part of, the interactive potential of AI is high. As multi-media is already an established aspect of installations, it seems intuitive to incorporate AI. Furthermore, within installation art, the placement, staging, and incorporation play a vital role (DeGuzman, 2023), meaning that within this framework, it is much easier to see AI as a mere aspect of the installation rather than the artwork in question, as is the case with paintings. This does not mean that the realm of installation art cannot face AI struggles but rather is inherently more open to using it while maintaining a clearer separation between the artist and AI.

Thus, any attempt to tackle AI art from an art perspective is faced with the problem of accounting for countless definitions, views and theories of art. To limit the scope, this thesis will concern itself with image generating AI. The reason for this is twofold. On the one hand, image generating AI is the most known and familiar and on the other hand, the visual element of images is easy to display and reference in a text document. Furthermore, this thesis will

¹ Several people exposed her to sexual violence, and someone allegedly held a gun to her head (Graf, 2022)

focus on the generative AI of one specific program, namely Midjourney. The reason therefore is to avoid the complications of making statements about all image generating AIs, while also providing a feasible scope when it comes to examples. While the focus of this thesis lies in image-generating AI, it is noteworthy that generative AI can also produce music or entire videos. In cooperation between musicians and computer scientists, for example, the start-up Playform AI has used AI to create new Beethoven symphonies based on some unfinished manuscripts by the composer (Goodyer, 2021), while Spain's RTVE Symphony Orchestra performed music composed by AI (Colomé, 2024). Finally, the last limitation is found in the choice of theory behind action: Hanna Arendt's action ontology in her 1958 book *The Human Condition*.

Arendt's investigation presents how the idea of work and action has changed in the Western sphere and is, most and foremost, an exploration of the possibility of political action. Arendt discerns three forms of activities: labor, work, and action. The strength of Arendt's work is her differentiating the terms of work and labor into entities that each signify a distinct relationship between a person, the world, and society given a specific context. In *The Human Condition* Arendt provides a fascinating insight into the idea of creating art and what role art creation plays according to her. Arendt makes no statements regarding art's nature but regarding our activity's nature when creating it (VA).

Arendt's reflections were written on the edge of the computer age, with the first computers being already mentioned in her work. In contrast, two years prior to releasing *The Human Condition*, the first documented appearance of the term Artificial Intelligence² appeared in the application for third-party funding of the computer scientists McCarthy, Minsky, Rochester, and Shannon (Rosengrün, 2021). So, while Arendt is not delving into the depths of the computer science of her time, the core idea of computers already plays a role in her argumentative framework. Investigating the question of AI art from the perspective of how it impacts the human act of creating art thus leads to the following adaptation of the research question:

*“Is using the image generating AI Midjourney still falling under the category of work, as the creation of art does for Arendt, or is the placement of art creation shifting within the action-ontology of Hannah Arendt's *The Human Condition*?”*

² The first documented appearance of the term in the same sense of AI as computational algorithm.

While Arendt provides fascinating and influential explorations of these actions, taking her as a baseline has its fair share of limitations. Arendt's work is primarily a political-theoretical investigation concerning phenomena like freedom, political will, or the role of truth within politics. Furthermore, her explorations are heavily intertwined, as her idea of labor, work, and action develops within the framework of a political *populus* comprising a complementary distinction between the public and the private (VA; Straßenberger 2015, 92-93). Thus, art and its nature were never the focus of Arendt's work. She highlights its relevance for the act of creation and further investigates art in her essay "Kultur und Politik,"³ in which she, among other points, argues that artists lose control over how their piece gets interpreted, like political ideas that were transferred to the public often gain a life of their own (Straßenberger, 2015, 186). While essays like "Sein als Erscheinung, Demontage der Metaphysik: Hannah Arendt und die bildende Kunst", by Annette Vowinckel highlight how art played a vital role in Arendt's life, while within her extensive theory of action, art plays a fringe role (Heuer & Lühe, 2007).

A second limitation of this thesis is its technical nature. AI is an intricate technology that keeps changing at a fast pace. On the one hand this means that rapid advancements threaten to diminish the actuality of the thesis. On the other hand, it means that the limited technological background of this thesis's author can lead to misunderstandings of the technology. To counter these restrictions the key argument is orientated around the very baseline of how AI works, meaning AI would need to fundamentally change to threaten the arguments of this paper. Furthermore, the sections regarding AI have been submitted to a colleague who is a computer scientist, with a Masters in AI technology, to check for misunderstandings of how AI works.

The advantage of this limitation is that it provides a more feasible scope for the intersection of three significant topics (art, Arendt, and AI). Furthermore, due to its niche nature, the thesis presents a novel way of inspecting generative AI and Arendt's work. Until now, the tension between artist, art, and tool has never been so strong, meaning that there were little reasons to inspect Arendt and her action ontology in this context. Thus, the thesis aims to provide the groundwork for further inspections in this context of generative AI. While the novelty of the overall topic invites a focus on younger philosophers and literature that is written

³ This essay was derived by collecting several lectures that Arendt gave at the end of the 1950s under the name of *Culture and Society* (Pavlik, 2014)

in the context of this technology, Arendt provides a more established framework, allowing for an easy way for other authors to expand upon the results of this thesis.

Another strength of the thesis lies within its approach. By addressing the human side, the thesis not only forgoes the question of defining art it also enables arguments that can apply even if AI makes technological advances. While the questions of ethics in the AI datasets or the question of AI creating art, can shift with new improvements or regulations, the question of how it impacts as can remain relevant. If AI, as of now, impacts the human act of creation, a more improved version of AI might do so even more. If for example AI gets sentient, it might fulfill most criteria of creating art, while making it clear that the AI creating art and a human creating art with such a being, seems fundamentally different.

The thesis will be structured as follows.

The first section covers image generating AI, the way it operates, and its current limitations. This section assumes an audience with no technical background. It focuses on conveying the general principle behind AI while highlighting how these processes differ from human agents creating art. This section also explores prompting, the process of communicating to an AI what a user wants it to create.

Once the core principle behind generative AI is explained, the second section explores the literature on generative AI. As delving into the general idea of art or AI would go beyond the scope of this thesis, the focus remains on the intersection of AI and art and will cover papers that focus on both. This section aims to present a comprehensive summary of the discourse of generative AI. This section will also cover the literature on Arendt and art, as well as the literature on Arendt and AI, resulting in arguments for a research gap for this thesis.

The third chapter then explores Hannah Arendt and her work *The Human Condition*. The aim is to extrapolate her thoughts on creating art. While the general idea of her works is being introduced, this section provides no thorough analysis of *The Human Condition*, as this would go beyond the scope of the thesis. After establishing Arendt's idea of the act of creating art, this section also delves into selected aspects of art creation. Namely the idea of copying vs. stealing and the perspective of the tools impacting the artist. This section concludes that the relationship between users and AI is more akin to that of a client who commissions an artwork rather than a traditional artist.

The fourth section addresses the paper *Prompting the E-brushes: Users as Authors in Generative AI*, which argues against the conclusion of section four. This section responds to

the arguments to strengthen the case for the idea that creating art with AI is more akin to commissioning art.

The fifth section will explore the effects of this conclusion in the context of Arendt's action ontology and investigate other aspects of art creation that shift in the context of AI and Arendt.

A sixth and final section will summarize the thesis and provide an outlook to further research.

I. What is an art crafting AI?

This section will introduce the notion of AI and explore its relevant mechanisms in the context of art-creating AI. The aim of this first part is twofold. Firstly, to give a comprehensive overview to readers unfamiliar with AI without going too deep into technicalities. Secondly, it offers a better understanding of the mechanisms within AI so that the reader can compare them with human activities. The first section will explain AI in general, and the second section will discuss the idea of machine learning, adding more depth to the explanation of the first sub-section. Finally, the third sub-section presents the idea of prompting, using written commands to create paintings, music, or videos.

I.I ChatGTP, what are you?

The Encyclopedia Britannica defines AI as “**artificial intelligence (AI)**, the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. “ (*Artificial Intelligence (AI) | Definition, Examples, Types, Applications, Companies, & Facts | Britannica*, 2023). Whereas the Cambridge Dictionary defines AI as “the use or study of computer systems or machines that have some of the qualities that the human brain has [...]” (*Artificial Intelligence*, 2024). With these definitions, AI means that programs or computer systems are now aiming at fulfilling tasks that previously needed human intelligence or were associated with it. This asks the question of what a program is. The Cambridge Dictionary defines a program in the context of computer sciences as “a series of instructions that can be put into a computer to make it perform an operation: [...]”. (*program*, 2023). If we break this down even further, we arrive at the base structure of computer science: a bit or binary digit. At its core, computers can only express one of two values: 1 or 0. By arranging these two values, we can construct more complex figures. The number seven in binary is 0111, and the capital letter A is expressed as 01000001 in the American Code for Information Interchange (Hansen et al., 2019). By arranging these bits, we can formulate sentences and create operators. Operators are the backbone of every program, allowing to task the program with actions. An arithmetical operator, for example, would be “-”, “+”, “/”, comparison operators express symbols like “=”, “<” and “>=”, while logical operators work with AND, OR, and NOT, for example (Gupta, n.d.). All operators can be broken down into long chains of bits of 1 and 0. Writing out every command in bits would be tedious, but this is where programming languages come in. Programming languages are roughly separated into

two forms, high-level and low level (or machine and assembly language), with the first being more human-friendly and the latter being more machine friendly (Hemmendinger, 2024; Tuama, 2022). Assembly language in this case means that it is easy for a person to understand by just being able to understand human language, while a low level or machine language is displayed closer to its core nature of 0 and 1. Meaning in an assembly language one can write “ ‘add pay, total’ instead ‘0110101100101000’ ” (Hemmendinger, 2024) because the programmers of the assembly language coded that if the input is a certain word it is as if one had entered the corresponding binary code. One can imagine an assembly language like premade bricks that are easy to stack together but they confine one to the shapes of the bricks, while a machine language gives one very little but enables personal changes and more potential (Hemmendinger, 2024; Tuama, 2022). This means each programming language offers itself for different purposes, as changing levels of complexity and abstraction allow for different levels of control over the resulting program.

As AI is programmed with traditional languages like C++, Python or R (Khatri, 2024) the novelty of AI does not reside in a new type of program or programming language, but rather, it demarcates a jump in the ability of a program to do tasks associated with intelligence. It is here that the initial definition turns out to be unclear. For one, it is another question of what exactly “tasks associated with intelligence” are and how intelligence is defined. For example, a program designed to calculate more and more digits of the infinite long number π will fare better than any human while still not fulfilling most ideas of intelligence. A traditional chess program on a phone for example, can beat most humans while intuitively one would not describe this program intelligent or even AI.

A possible approach would be not to define AI solely concerning human capabilities but rather in how it comes to a result and what kind of results it attempts to gain. While all AIs are still programs, a potentially defining difference could be how their instructions work and their intended result. If we take an alarm clock app, for example, we must write a program with an apparent end goal. It needs to measure time and be able to communicate a specific time if wished for. The path towards the goal is straight, with clear objectives that must be fulfilled. However, AI usually faces an open-ended path regarding their task. For example, Deep Blue, IBM’s chess computer, was the first to beat a chess grandmaster in 1997 (Schulz, 2017). Chess might have a clear goal, but the path of solutions is open in its 10^{40} possible moves to make

⁴ In words: ten sextilliards or 10 000 000 000 000 000 000 000 000 000 000 000 000

during a game. There is no golden rule, and it is impossible to program every possible move and its best response. The same goes for ChatGTP, as the goal of conversing with a human person might be straightforward, but across all the possible combinations of words and their meaning, there is no clear path to provide a general solution. Similarly, that the image generation program Midjourney has no clear line between a starting point and the goal of creating an image. As there is no 100% correct way to fulfill the goal, the program must approximate possible solutions. This leads to the terminology of “machine learning”, but what does this mean?



Image 2, Digits of the MNIST dataset (MNIST - Machine Learning Datasets, n.d.)

Most people who enjoy a standard education can decipher the numbers displayed above. Some digits might be a bit unclear to read, but overall, these handwritten digits are easy to read. This image is from the Modified National Institute of Standards and Technology Database (MNIST) dataset, which contains about 70.000 images of handwritten digits (LeCun et al., n.d.). The MNIST dataset is a publicly available dataset that can be used to train “[...] machine learning techniques and pattern recognition methods [...]” (LeCun et al., n.d.). While it seems easy enough to humans, for a program, it is difficult to assign each square the correct corresponding digit correctly.

When children learn about the number two, they gain a general understanding of what this number means and what it entails. Combined with other learnings, the child will eventually realize how “two”, “2” or “II” can all signify the same idea. The child will also learn how two often describe the existence of two things, persons, etc. Furthermore, a person will understand that the shape of a 2 can vary while still meaning the same thing, meaning that 2, *2*, and **2** all signify the same number. However, a machine lacks this understanding. For a writing program

like Microsoft Word 2, 2, and **2** are just different visual representations of the same binary code for two, so “10”. However, as there is no sentient entity that can grasp the idea of two, the program cannot simply realize that all three twos’ have shapes in common. There is not even an entity that grasps the concept of numbers like a person would, meaning that correctly assigning the number to a corresponding square does not imply an entity that understands what numbers represent.

In his video series *Neural Networks* the mathematician and YouTuber Grant Sanderson presents a comprehensible exposition of how machine learning (with Neural Networks [NN]) works (3Blue1Brown, 2017). One idea is that the AI breaks down the digits into compartmentalized structures that it can single out. For example, a 0 is always some form of an oval, round, or oblong-shaped thing, while a 1 usually is one straight line with another straight line on top of it, sloping down to the left side. So, while conveying the meaning and structure of a “two” is hard, a straight line seems more feasible. However, while it seems more manageable, the problem remains: what is a line or circle?

The baseline of AI is still 0 and 1 in the sense of on and off. There is no entity “seeing” and interpreting a line as such. What Sanderson shows in his video is one possible solution. The images that we want the AI to detect all have the same grid of pixels⁵. So, one might say that specific pixels are more active than others depending on if they depict part of the number in a specific area (3Blue1Brown 2017, 08:35-11:33). If certain areas light up, it could indicate that a certain sub-structure of the number is active. If several of those substructures are active, they could indicate a certain number. For example, by dissecting one into one long line and a small one on top, and a six into a circle and a curved line on top, the separated structures could enable the machine to read them. For this to truly work, this portioning of the numbers goes way deeper than a circle and a curved line because, again, a curved line is a complex thing to convey. Both nine and eight have circles with curved lines attached to them, and a circle is nothing else than a curved line bent into itself, and a curved line is nothing, but an array of straight, short pixel lines arranged offset to each other (3Blue1Brown 2017). To answer how an algorithm makes sense out of the input data, one needs to take a brief look at the process of machine learning based on neural networks.

⁵ It is not necessary that they all have the same Pixel grid, but it makes substantially easier for this example.

I.II What is Machine Learning?

The commonly found terminology surrounding AI is referencing different aspects of AI. Machine learning (ML) based on Neural Networks (NN) is often wrongly used pars pro toto to mean AI, (Rosengrün, 2021, 24-26). For example, Deep Learning (DL), ML and NN are not synonymous, with DL referring to an aspect of NN and NN is a possible form of ML (IBM, 2024). The reason for focusing on ML through a NN in this thesis is that this is frequently used for image-generating AI and especially Midjourney (Dev, 2023).

A NN imitates a rough sketch of a human's neural network, creating nodes or neurons that either fire (be activated) or remain cold (remain still). Each neuron has a mathematical function that assigns when the node is firing, meaning when it is activated (Rosengrün, 2021, 24). The neurons are categorized into three layers: an input layer, an output layer, and a so-called hidden layer in between (Rosengrün, 2021, 24-27). Every neuron has a "weight" to indicate what neurons to activate next. One can imagine the weight as a sort of decision help. Each weight dictates how much impact a neuron has in activating the subsequent ones (Rosengrün, 2021, 24-27).

Furthermore, each neuron has a threshold or bias that signifies a value that needs to be breached to activate the neuron. So, when an input is given to the input layer, particular neurons will fire while others will not (Rosengrün, 2021, 24). Given the value of this initial input the threshold of the following layer will be breached for some neurons while falling below for others. Now, a new array of neurons fires with different values, and the process is repeated for each hidden layer until a value reaches the neurons of the output layer. Again, each neuron has a specific threshold that needs to be breached to determine if the neuron will fire or not. The number of hidden layers thus scales the complexity of the NN, as every neuron can potentially activate every single node of the following hidden layer (Rosengrün, 2021, 24-27).

In Image 3, a NN with 15 hidden layers, 784 input neurons (one for each pixel in an image of the MNIST dataset), and ten output neurons (representing all digits from 0 to 9), is visualized. In a perfectly trained model, the input layer would receive 784 inputs, signifying every pixel in the image, and it would result in only one node of the output layer firing, signifying the number displayed in the input image.

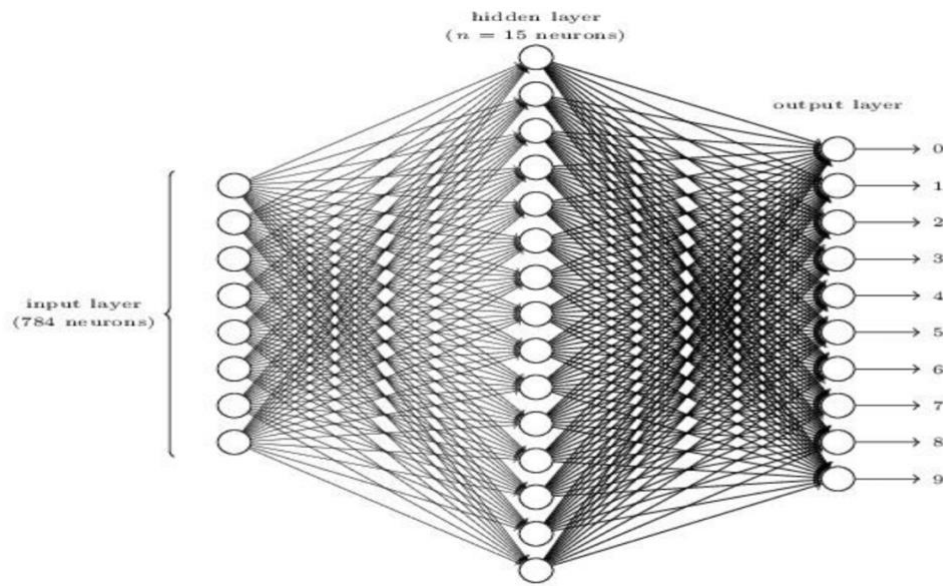


Image 3, NN for MNIST dataset with 15 hidden layers (Marcal, 2016)

In a process of trial and error, the machine is now chasing every image of the training data set through its layers to see what happens. In the case of the MNIST data set every image is labeled, meaning that every image contains the information of which number it is supposed to depict (LeCun et al., n.d.). The AI runs an image and gets specific values that let it fire the neurons for 2,3 and 7, for example. The program then checks the image data and sees that 3 is correct, but 2 and 7 are false. The program then adjusts the weights and biases and tries again. This process is repeated until the programmers are satisfied with the quote of correct identifications, resulting in a complex weave of weights and thresholds that can determine the correct number with a certain level of confidence. The MNIST dataset contains 60.000 images for training and 10.000 for testing, meaning the 10.000 digits are displayed similarly but are unknown to the AI. If the AI was programmed correctly (and was enabled to learn from the training data), it should be able to classify each handwritten digit, even though these particular images are brand new to the AI.

This description is a broken-down explanation based on a simple form of AI. Yet, it nicely illustrates what happens when talking about machine learning based on NNs in AI. We can also see how the algorithm's quality depends on data set size, time, and computing power. If a dataset is too small or too large the AI will struggle to properly learn from the training data as the AI will either oversimplify data or result in an overly complex model (Sivek, 2024). Let's assume the training data for MNIST, for example, would only contain 1.000 hand-written images for training and all are by the same person. In that case, the AI might become an expert

in deciphering this person's handwriting but could fail when given other people's handwritten numbers. The program's computing power and time determine how many trial-and-error runs can be made. The more runs are supported by hardware and power, the faster the AI can learn and thus the more precise the AI can become in a certain amount of time (Rosengrün, 2021, 27). The computer scientist Meredith Broussard writes that looking at the chess AI Deep Blue, for example, it seems obvious that it defeated the famous champion Garri Kasparov as it combined the result of nearly every game of chess ever documented into a brute force strategy, arguing that the AI simply chewed through more games of chess than a person could ever play in their lifetime (2019, 36).

It is noteworthy that there are various approaches regarding the supervision and training of AI. The example of the MNISC dataset is displaying so called supervised learning. The trial-and-error process of the machine is supervised by a human agent that nudges it in the right direction, communicating to the machine which result is wrong and right (in the example of MNIST the images are imprinted with the answer of which digit is displayed). However, there are also methods of unsupervised learning. Instead of working towards a specific goal, one can just let an AI roam through a dataset in the search for patterns. In these cases, the AI has no specific goal besides looking for patterns⁶. Here, an AI can often find correlations between unexpected data nodes, as the AI has fewer biases against which data might be interesting⁷. (Rosengrün, 2021, 27). A sort of hybrid approach is called reinforcement learning. Here the program often starts unsupervised but is getting feedback ("punishment", "reward") to nudge the program into a desired direction (Rosengrün, 2021, 27).

It is important to note that there is not only one AI but various approaches that each work better for specific goals. Generative Adversarial Networks, Recurrent Neural Networks, Transformer Models or Convolutional Neural Networks are the most known in the context of image-creating AI. For example, in the context of creating images or videos, Generative Adversarial Networks (GAN) are often used and gained media attention due to a lot of Deep

⁶ The philosopher of technology Yuk Hui argues that the notion of non-supervised learning being without a goal or telos is a fallacy, as it simply means that the AI is given more freedom in what connections it reiterates by giving less rules that need to be followed (2023, 8),

⁷ While less, we cannot claim that they have none, as any AI will overtake the biases of its creator, meaning AI has quite a lot of human biases. But in the context of unsupervised learning an AI will look at seemingly uninteresting connections with the same relentlessness as towards any other dataset, thus ensuring a more "open-minded" approach than most humans will have when faced with mountains of data.

Fakes⁸ on the internet that were created with this process (Kinariwala, 2019). GAN combine two forms of neural networks: a generative one and an adversarial one. The generative network is programmed to learn from actual faces, paintings, etc., to create a synthetical output (Kinariwala, 2019). The adversarial network, on the other hand, is programmed to differentiate between real faces or images and synthetical ones. The electrical engineer Kinariwala describes this process as a tug of war between an art forger and an art appraiser, with both learning from each other, thus getting better and better at their respective job (Kinariwala, 2019).

AI is thus a somewhat perplexing creation. At its baseline, most AIs are a variation of a relentless process of trial and error that crunches through information without tiring. However, to accomplish this, AI deploys algorithms and programming in the highest order. Utilizing only a system of on and off, one can teach a program to detect the patterns in our creations and replicate them. It also important to note that AI is not a “new” technology but has been explored since the 1950s. Productive papers asking where AI can be found, date back decades. For example, “*Where’s the AI*” by Roger C. Schank from 1991, in which he describes AI as a program that can change its interactions with users. To conclude this chapter four key aspects of AI appear as definitory: a) AI is not an inherently new programming language or form but rather a complex way to use the existing tools of 0 and 1, b) AI aims at mimicking, fulfilling or partaking in tasks associated with (partial) human intelligence, c) there is not the one AI but rather countless programs, learning methods and combinations of tools that constitute the large realm of AI and d) AI is not a clearly demarcated field and contains countless shades and forms of AI or AI adjacent programs . But moving to art: what does one have to do that an AI spews out an image, a tune, or a video clip?

I.III The art of prompting. – Turning words into pictures.

This section will take a closer look at the process of creating something with AI using the example of the image generating AI Midjourney. The underlying process can be applied to other generative AIs that follow a text-to-medium pattern⁹. The essential action that the human

⁸ Deep Fakes, Definition by Merriam Webster: “an image or recording that has been convincingly altered and manipulated to misrepresent someone as doing or saying something that was not actually done or said” (2024, August 25th). Videos of politicians or celebrities doing or saying socially unacceptable things are the most viral examples.

⁹ Generative AI includes all forms of AI that are being used to generate some form of text, tune, image etc.. ChatGTP would also fall under the category if generative AI for example.

agents need to do is the so-called “prompting”. A prompt can be a word or a whole chain of commands written in a natural language that communicates to an AI what we want. The prompt is the input, and the resulting piece is the output. When drawing the analogy towards the MNIST dataset, the input is no longer the 734 nodes for each pixel of the uniform dataset but is now a part of the AI trained as a Language Model. In generative AI this aspect is a so-called Natural Language processing unit, which enables it to generate outputs from inputs in a given natural language (IBM, 2023). One can imagine the natural language processing as an advanced assembly language, so that a prompter can give input in natural language rather than having to prompt in 0s and 1s. If, for example, our prompt is to paint a dog, the program must understand what the term “dog” entails and how to depict those aspects. With the MNIST dataset, the struggle was to identify a number, but now the AI must grasp concepts like shape, color, lighting, as well as texture and general concepts like a dog for example. Similar to the MNIST dataset, this is done by training an AI on images of dogs so that when the prompt reads “dog,” the AI knows which pattern of learning material it is looking for. For example, this article on *tolingo.com* started by giving the art-generating AI Midjourney the prompt “A Dog” to gain the following result:



Image 4, (Prompt Engineering for Beginners: Here’s How It Works! | Tolingo)

Midjourney always provides a result in four squares, offering different variations from the start. The outcome is four dogs, all in a similar pose, facing forward, and while breed and fur color seem to vary, they all share a similar physiognomy. While not directly correlating, this could hint at some aspects of the training data. When given only the context of “dog” the AI presents front-facing, un-ambiguous dogs with a precise framing. Many photos within the training data were likely of similar design. But what happens when the prompt is imbued with more detail? The following more detailed prompt is: A large, joyful Golden Retriever playing in a sunny park with fluffy fur that shines in the light (Tolingo, n.d.). The result was this:



Image 5, (Prompt Engineering for Beginners: Here's How It Works! | Tolingo)

Now, the AI must process much more information and incorporate it into a coherent piece. Instead of referring to dogs in general, the prompt addresses a specific breed, a mood, a location, an activity, and the relation of light and fur. The AI incorporates all the prompt's requirements, implying that the training data provided enough images of these components to isolate them and then re-combine them if needed (or at the very least, the training data contained countless images of happy Golden Retrievers playing in a sunny park). What also needs to be noted is that the “camera” angle is still like that in the first prompt. This again hints at specific patterns in the training data and used programming and thus hints at a sort of “default” perspective for the AI.

When the author of this thesis entered the same the prompt of “A Dog”, Image 6 came out:



Image 6, by Daniel Aaron Prem via Midjourney 2024

While some aspects remain similar, with two greyish backgrounds, a blue background, and an overall similar physiognomy, it hints at how the AI has improved over time¹⁰. The dogs now showcase two different poses. Especially with the dogs at the top, the AI seems to embrace a style that feels painted rather than go for photorealistic images. Overall, the dogs also appear more varied in race and size. Doing the same prompt of a playful Golden in a park (Image 7), on the other hand, appears somewhat similar, with only the addition of variations on the pose. The images are more orientated in a photorealistic style rather than evoking something painted.

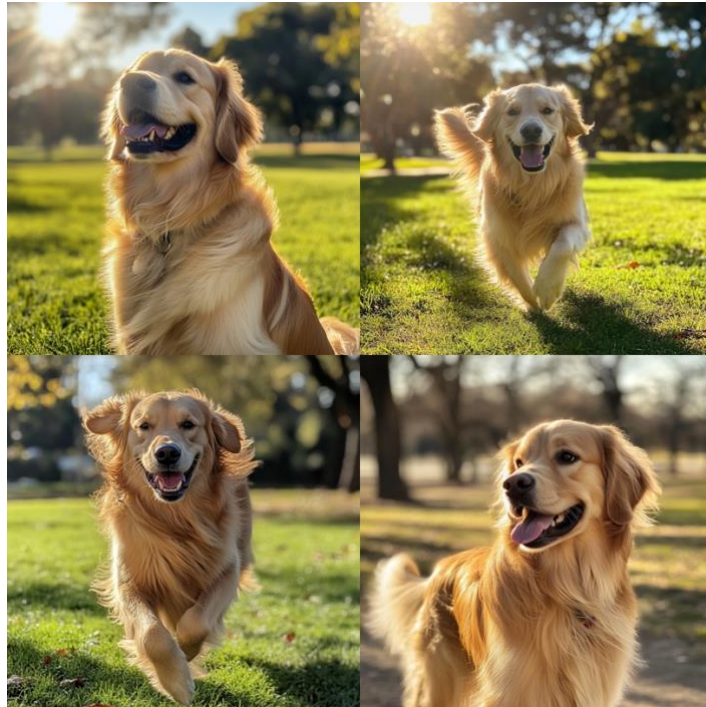


Image 7, by Daniel Aaron Prem via Midjourney 2024

At this point, it is essential to recall the MNIST data set. The AI is not gaining an inherent understanding of the nature of a number, and Midjourney is not getting an inherent understanding of what a dog is. Thus, a reason for the front-facing dogs may be that the AI only comprehends them as such. An AI that can ideally differentiate between dogs and other animals when shown photos of their head facing straight at us might be completely clueless when being shown the same animals in a profile shot. As far as AI is concerned, that would constitute a new entity. The same goes for the components of the second prompt. When we see the image, the dog, the trees, and the ground are separate objects. We know the rays of light

¹⁰ The blogpost shows no date, but mentions spring 2023 as the moment that AI became increasingly sophisticated but as the blog could have changed, there is no clear evidence to demarcate a timeline between the initial prompts and the prompts made by the author of this thesis in September of 2024.

are not part of the dog. The AI does not so inherently. If an AI, for example, would obtain training data with countless dogs in various environments, but each of them has a bone in their jaw, the AI would not struggle to isolate the dog from the background, as it would keep changing, but the key features of the dogs remain the same, only that the AI would have no inherent reason to not also see the bone as a part of the dog.

A prompter, or prompt engineer, tries to research the best way to communicate their needs to the AI (Thompson, 2023). Depending on the AI, the LLM section can comprehend more complex inquiries, thus enabling the prompter to create more complex outputs. Depending on the dataset, the prompter can ask for a specific style, a circumstance that caused much anger within the art community as more and more people realized that people fed their artworks to generative AI to mimic the distinct style of a specific artist (Hayton, 2024; Nolan, 2022). In this process, referred to as Neural Style Transfer, a content image is infused with the style of a style image (Baheti, 2021; *Generative AI Art for Beginners: Midjourney & the Tactics of Killer Text Prompts* - Alexander Street, a ProQuest Company, 2023, 00:06:25-00:16:55). The idea is that the content image remains unchanged when it comes to the depicted object, lightning and composition, while only gaining the style of the style image, without importing any of the actual contents of the style image (Baheti, 2021; Yuan, 2018)¹¹. What is noteworthy is that the process of Neural Style Transfer often uses GANs that drastically reduce the amount of needed data. In their influential paper, “A Neural Algorithm of Artistic Style”, Gatys et al. infused a photo of the Neckarfront in Tübingen, Germany, with the styles of Van Gogh, Munch, or Picasso (Image 8) by only using a single artwork as the style image (2015, 6-9).

¹¹ It is noteworthy that in both Baheti’s text as well as the teaching material from Alexander Street or the paper by Gatys et al., bring the example of reimagining a new image in the style of a famous, deceased, artist like Van Gogh. This portrayal of Neural Style Transfer seldomly addresses the possibility to copy the style of living artists. This is also apparent in instructional YouTube Videos like “Easily CLONE Any Art Style With A.I. (MidJourney, Runway ML, Stable Diffusion)” by Casey Rickey (2023).

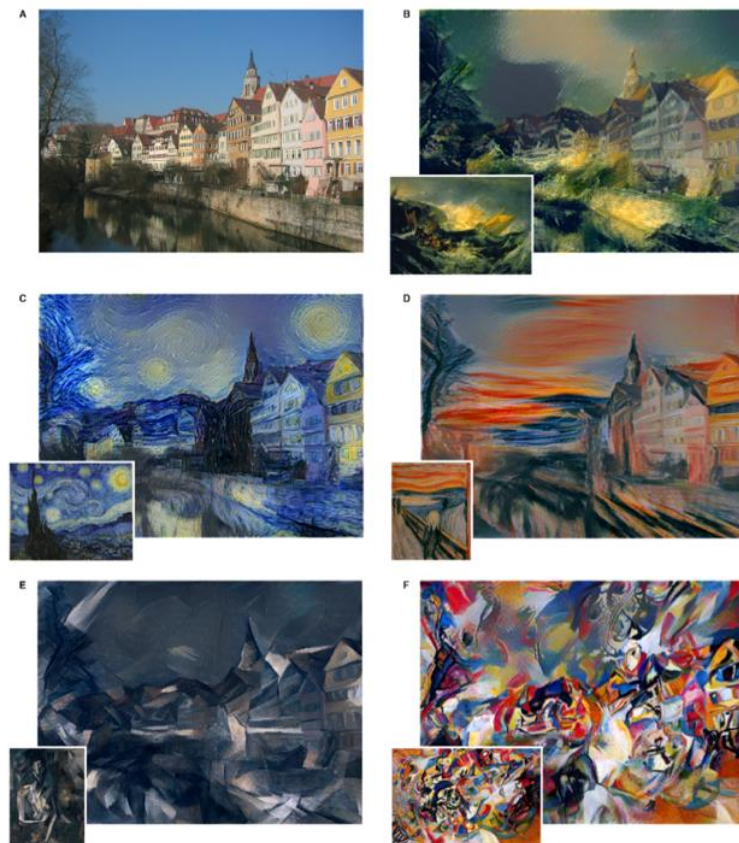


Image 8. Gatys et al. (2015,5)

Rapid technological advancements have shown that copyright law is unprepared to deal with these emerging artworks (Setty, 2023). On the one hand, it was clear that the feeding of a specific artist enabled the AI to copy a distinct style; conversely, it is unusual that people “own” a particular style. AI has further muddled this question of demarcating copies from inspiration, as it needs the existing artworks to operate. The lack of support by the law led to programmers devising technical solutions to this problem. For example, the participants of the *2024 IEEE/CVF Winter Conference on Applications of Computer Vision* worked on ways to protect artworks from Neural Style Transfer by infusing technical boundaries into the files of artworks (Li et al., 2024). Similarly, projects like *Glaze* and *Nightshade* provide services to artists by either protecting their work against Neural Style Transfer (Glaze) or by infusing data into the file that “poisons” AIs that try to learn from that artwork (Nightshade), affecting their ability to create fitting images (*TheGlazeProject - Our Mission and Vision*, n.d.).

The previous sections have conveyed a rudimentary understanding of AI and how prompting with an AI leads to visual output. The example can be expanded for sound or video. The program Sora, from the company OpenAI can create entire videos from a text prompt

(Sora | OpenAI, no date). Paul Trillo used Sora to produce a trailer, imagining TED Talks in 40 years, showing how potent AI is in creating entire videos (Trillo, 2024). To better understand this process, this section will outline two methods of text-to-image generation: latent space and diffusion. This section aims to convey a more precise meaning of how algorithms are used to create images so that the process is better understood.

The method of latent space is based on a statistical concept to reduce complexity within a large set of data points by projecting the data into a multi-vector space that creates general categories for the images received in the training data (Drapala, 2024; Mei 2024, 33; Rombach et al., 2022). Such vectors could group categories like “size”, “fur” and “likeliness to be a pet”, the images in the training data can then be assigned to several vectors at the same time. A dog, for example, would score high on “likeliness to be a pet”, maybe medium on “size” and high on “fur”. A wolf would share the same parameters except scaling higher on the size and lower on “likeliness to be a pet”. But the proximity of some spots on the scale indicates to the AI that a dog is somewhat like a wolf, whereas a scorpion must be something entirely different, as it is placed lower on every vector. Thus, latent space enables a programmer to break the complexity of images down into vectorized factors and then re-combined to achieve results even if the AI has no explicit training for a specific image (Mei, 2024, 33ff.). Returning to the “dog in a park” prompt, latent space could have been used to dissect different layers of the image, like “tree”, “dog” and “Golden Retriever”.

Another tool is the so-called process of diffusion. In this process, an image is infused with “noise”. Noise means random and chaotic pixels that cover a painting like an additional layer (Erdem, 2023; Eteimorde, 2024; Mei 2024). The AI learns how first to add a layer of noise before training to remove the noise again and complete the image below it. By repeating this process, each time adding more noise, the diffusion process allows the AI to create a similar image to the one first covered with noise. One can imagine this as taking a picture looking at it, before cutting out little squares of the image to re-paint them from memory. Repeating this process often enough will result in a different image still heavily orientated at the underlying image.

Both diffusion and latent space are not forms of generative AI but rather mechanisms that are often combined. Stable Diffusion, for example, takes advantage of both processes, among others (Mei, 2024). Both illustrate how much effort is put into calculations and programming to create an AI while also highlighting how numbers and calculations can result

in images. Nevertheless, it also highlights how much these machines create without the creator of an artwork explicitly telling them what or how to do it.

So far, the thesis covered a rudimentary understanding of art-generating AI and the process behind it, which is called prompting or prompt engineering. It showed that AI can master various tasks by finding patterns within the provided datasets and re-forming these patterns on command. Furthermore, the thesis highlighted that the combination of different sub-types of AI enables a program to decode commands written in a natural language and express the answer in text, image, sound, or video.

While the thesis already established that the true nature of art is of now concern to it, it is valuable to ask the question of creativity. One can be creative without being an artist, but most would agree that being an artist entails creativity. Thus, we must ask ourselves: can AI be creative?

II. The Literature on AI Art

Even though the topic is comparably young, the literature on generative AI is extensive, with AI art being one sub-section of many. Next to countless educational books targeted at computer science students, the discourse on AI has produced many successful popular science books. These publications want to convey AI to a non-academic, non-technically versed audience, often focused on bridging the gap between assumptions about AI and its technical reality as well as its possibilities (Mitchell, 2019; Tegmark, 2017). Other public science books in the context of AI focus on the geopolitical and economic impacts, (Kissinger et al., 2022), argue for its extractive nature (Crawford, 2021), highlight the dangers of over-estimating what AI can do (Broussard, 2019) or offer arguments as to how AI should be used and programmed (Marcus and Davis, 2019).

In the sub-section of AI art, books like *The Artist in the Machine: The World of AI-Powered Creativity* (2019) by Arthur I. Miller or *Ripples of Generative AI: How Generative AI Impacts, Informs and Transforms our Lives* (2023) by Jacob Emerson provide optimistic views on how AI art could impact the idea of art. In her book *The Equalizing Quill: 6 Ways Generative AI Can Boost Publication Access for Underrepresented Authors* (2023), Angela E. Lauria argues that generative AI can be a tool to help marginalized authors and democratize the publishing process. In their series “AI for...”, Hageback & Hedblom published their book *AI for Arts* describing it as a manifesto for the way humans and AI will create art together (2021). In the context of academics, a rough distinction of the rich literature opens the following broader categories:

- a) an ontological category (What is AI art? Can AI create art? Is art crafting AI a tool?)
- b) an ethical category (How is AI trained? Should one use art generated by AI? What should one do about AI that enables problematic phenomena like Deep Fakes?)
- c) a legal category (Who owns AI art? Who created the artwork?)
- d) a socio-cultural category (How is AI art impacting society or specific cultures?)
- e) an economic and political category (How is AI art relevant for the economy? Is AI art making art creation accessible for underprivileged social groups?)
- f) a category of the theory of mind (Can AI be creative? Is AI displaying mental states?)
- g) a technical category (How does AI operate? How do certain forms of AI operate? How can one improve on this technology, and what would that look like?)
- f) an aesthetical category (Is AI art distinguishable from human art? Is it aesthetic?)

Many papers naturally fall into more than one of these broad categories. For example, Caldas Vianna inspects AI art in the context of the 2019 exhibition *Infinite Skulls*, concluding that AI can be an excellent tool for creators that face complex questions of ownership and ontology (Caldas Vianna, 2020), thus addressing the categories of ontology and law. Cetinic and She highlight AI as a tool to better understand art history by letting AI analyze digitalized collections to find patterns or visual stylometric data and other uses for art research (2022). Furthermore, they outline the impact of generative AI on computational aesthetics, a field that concerns itself with quantifying subjective perceptions of aesthetics and beauty (Cetinic and She, 2022) as well as the perception of AI art, pointing out how many people cannot distinguish human art from AI art and often find it aesthetically pleasing (Cetinic & She). Hertzmann argues that art can be defined as a “[...] phenomenon that results from the interplay of cultural institutions and the general population that we can analyze, and it changes over time.” (2018), locating his position within ontological and socio-cultural categories. As of 2018, Hertzmann claimed that generative AI could not be seen as an artist because it fails to fulfill this social role while maintaining the opinion that AI can be great for artists and should be seen as a fantastic new tool in the arsenal of artists. In his article “*Towards Ethical Relationships with Machines That Make Art*” Galanter argues for pondering the question of granting AIs authorship of their works if we cannot exclude the possibility of human-like AI (2020, 7). This addresses several categories (ontology of AI, theory of mind, legal and ethical categories), and it shows that papers concerning art-generating AI would be applicable beyond their respective sub-field. If one agrees with Galanter, for example, one could conclude that we should consider granting logistic AI authorship over their plans or ChatGTP authorship over the countless texts it produced.

In this sense, art generating AI is not a distinct phenomenon but rather a possible expression of the technology of AI. The questions within this sub-field get specific when they concern the impact precisely on the art scene or when they concern the nature of art itself. Here it is noteworthy to point out that the question regarding computer art or generated art, predates art generating AI. Boden & Edmonds for example wrote about “generative Art” in their 2009 essay “*What is Generative Art*”, delivering one of many examples, of computer-generated art being a relevant question, long before AI.

Joanna Zylińska, a philosopher and artist working on the intersection of new media, technology and philosophy wrote extensively on the topic in her book *AI Art: Machine Visions and Warped Dreams* (2020), which provides philosophical perspectives as well as artistic

perspectives. Zylinska analyses AI in the context of the Anthropocene, discusses ethical problems and highlights the tension between AI art used by artists and underlying ideologies from Silicon Valley investors and capitalists who fuel this new technology (2020). Zylinska provides a tight overview into how many subjects the topic of AI art touches, while also underlining that the topic is not inherently new but rather the next iteration of a long history of artists working with computers and robots (2020). Furthermore, Zylinska's work is rich in practical examples from the artwork, showing how relevant interdisciplinary work is in this context to better grasp AI.

A more recent example can be found in the essay "*Deep Else: A Critical Framework for AI*" (2022), in which the artist and researcher Dejan Grba reviews various papers inspecting where AI art is located in the current socio-cultural frameworks, perspectives, and artistic practices, concluding that while there are short-comings and problems, an artist should not ignore machine learning as a new medium (Grba, 2022, 26). Grba's work is exciting as their perspective as an artist shines through. For example, they are referring to an AI project as something merging "[...] technically competent execution with dilettante aesthetics, conceptual ineptness, and ignorance of art-historical context." (Grba, 2022, 4). While the judgment and its formulation might be up for debate, it is interesting to see academic artists highlight the problems and prospects of AI art from their perspective. Furthermore, Grba highlights a relevant aspect within the discourse sounding AI art in general: anthropomorphism (Grba, 2022, 3). Grba argues that anthropomorphism is "[...] sensationalized in AI art discourse, for example, by authors such as Arthur I. Miller, who argues for (intrinsic) creativity of AI systems." (Grba, 2022, 3; Miller, 2019). Anthropomorphic rhetoric can also be found in the way that authors often describe the mechanical processes of AI in terms of biological ones, e.g., "seeing" something, "speaking" about something, or "painting" something. While this does not necessarily prove anthropomorphic intentions by the authors, it hints at the ineptness of every day (and even academic) language to express biological actions in non-biological terms. This is another challenge AI brings, as humanity never really had to apply the idea of "seeing" to non-biological and non-sentient entities. This matters insofar as it clouds certain positions regarding AI. Is an author using the term "seeing" because they believe the AI or robot inhabits some form of consciousness, or is it just an intuitive way to describe how a machine can interact with its environment due to lasers and other sensory apparatuses? Thus, the question of whether there is a substantial difference between perceiving/acting/behaving organically or mechanically underlines most papers that do not explicitly address it.

An overarching theme within the AI art discourse is the argument that compares adversarial reactions to AI with the adversarial reactions towards photography, cinema, or television. In 2017, Agüera y Arcas, the leader of Google's Seattle AI group, published an essay arguing that technology has always modified and changed the context and means of art without taking away from them (2017). Referring to Walter Benjamins' critique of anti-technological concepts of arts or Rosa Braidottis figure of a cyborg, Arcas locates many of the resentments against AI in a natural and documented reaction, arguing that new art forms have continually disrupted the art sphere (2017). Like many others, he proposes a way along the middle, writing, "The work [of adequately managing AI] cannot be done by technophobic humanists, any more than it can be done by inhuman technologists." (Agüera y Arcas, 2017).

A subsection of the intersection of AI and art relevant for this thesis is that of AI and creativity. While not all creative actions lead to art and vice versa, working out how creativity and AI interact is essential for better grasping the interactions between machine and person when prompting.

II.I The Creativity of 0 and 1

The question of creativity is another vast topic that cannot be covered in detail. This section aims at providing spotlights amidst the rich discourse to better grasp how creativity could play a role for this thesis.

The computer scientist Joseph Weizenbaum argues that the awareness of being creative is a prerequisite, writing: "Um kreativ zu sein, muß das kreative Instrument, z.B. der Mensch oder der Computer, Wissen, daß er kreativ ist." (Rosengrün, 2021, 60), tying creativity to being sentient and self-aware. Other prerequisites might entail consciousness or emotions (Rosengrün, 2021, 60). The reason why this is of relevance for this thesis, is that depending on the grade of creativity that one is willing to assign towards AI, the stronger or weaker the AI might impact the act of creation. If one, for example, concludes that art-creating AI is to be seen as a creative entity like a human, it weakens the argument for such an AI to be a mere tool. The more creativity we assign to it, the more the machine resembles a second creative entity. Like two artists working together, the second entity is not comparable to a brush if a vital part of creativity or action is being taken by it. For example, a study examining the impact of people's perception of artworks once they learned that AI was used for them talks about "The trend of using AI for co-creation [...]", or "Suppose you [...] learn that an artist

collaborated with artificial intelligence to create her work.” (Messer, 2024, 1). Framings like this convey AI as something more than just a mere tool. On the other hand, if we assign no form of creativity to it, it seems easier to assign the role of a tool. Like the brush, the pen, or the canvas, which have no inert creativity while still bringing a unique aspect to the process, the “uncreative” AI could be seen as something similar.

Within the literature, there seems to be a consensus that, as of now, AI is neither showing emotion nor the capacity to act on its own volition in the same sense as human agents do. But Rosengrün highlights how this does not necessarily solve the problem (2021). He brings the example of David Slater, an animal photographer who got sued by PETA when the organization claimed that the rights of an iconic photograph belonged to the crested macaque who shot an accidental selfie (Slotkin, 2017). The case asked the question of ownership in non-human agents, as it was the monkey who accidentally pressed the button. One could draw a comparison with AI, as it can be assumed that neither the monkey nor the program understands what they are doing in the same way that a human agent does. Is it enough to commit the action to claim some form of ownership, thus implying some agency, creativity, or other form of involvement? After all, one would not attest to the brush, drawing program, or marble any more relevance besides that as a tool. At the same time, it seems unintuitive to describe the monkey in the previous example as a tool. But at the same time, it is equally unintuitive to call the monkey creative in this context, even though it is impossible to determine to which degree the monkey was aware of what he was doing.

Other possible factors for defining creativity might be creating something new or surprising, as the cognitivist scientist Margaret Boden proposes (Rosengrün, 2021, 60f.). In this approach one might argue that a machine cannot be creative as it can only recycle or create something through calculations. Rosengrün quotes the father of computers, Alan Turing, who responded that just because something is calculable, it does not mean that it cannot bear any novelty as certain creations of men might be calculable or circumstances of their environment, without taking away from the fact that something new has been created (Rosengrün, 2021, 60f.). But even if an AI acts “creatively” it asks if it was not the programmer who acted creatively. If a program provides a particularly creative solution to the problem, it seems possible to attribute the creativity to the programmer rather than the machine. If creativity stems from an approach like unsupervised learning, one might draw a comparison to the work of Jackson Pollock, where chaos and randomness are consciously chosen tools to create a piece

of art. Similarly, the programmer can choose a more unsupervised approach, as it is up to them what they make of it.

Thus, in the context of art generating AI, one faces a threefold relationship. The programmer(s) who developed the AI, the AI itself, and the user who uses the AI, meaning there are three possible nodes of assigning creativity. The programmer can be creative in how they write their code, the user can be creative in how they prompt, and the question is, is the machine creative in its creation, or is it just the prior two contributors that matter in this question? So far, several possible aspects to mark creativity and problems with assigning them to machines were introduced. While aspects like novelty are at least debatable, it seems unlikely that we can assign emotionality, intentionality, or awareness as potential reasons to assign creativity to AI as of now.

As the focus of this thesis is on the circumstances of humans creating art rather than what art is, the question of creativity is faced with some limitations. While creativity is not to be equated with art and vice versa, various definitions impact each other. For example, in his essay *“Can Machines Create Art”*, Mark Coeckelbergh describes two approaches under philosophical aesthetics: modern expressivism and the pre-modern idea of mimesis or imitation (Coeckelbergh, 2017). The first stems from a romantic tradition that locates art and aesthetics in an act of expression that reveals something about the artist. Mimesis, on the other hand, describes the idea that art should imitate something and, through that, reveal the state of the world. Aristoteles, for example, believed that the imitation of art is expressed with a form of distance towards a theme or object, thus allowing for catharsis can (Coeckelbergh, 2017. 290-291). The modern expressionistic approach is a view on art that seems less intuitive for ascribing creativity towards AI as there is little evidence that generative AI reveals anything about feelings, impressions, or observations and thus cannot express the creatively (Coeckelbergh, 2017.). Mimesis, on the other hand, emphasizes copying something that generative AI could excel in. The relevant point for this thesis is that in either way the notion of creativity might change. Suppose one defines art as the result of imitating the world. In that case, creativity might be how to approach colors and forms to achieve something life-like, while creativity in a modern way might describe a new form to externalize an emotion. To remain within the scope of this thesis, these limitations must be accepted without being appropriately addressed. Thus, any human-centered theory faces severe problems in ascribing creativity towards AI or requires adapting. But what if this new technology needs a new understanding of creativity?

In his paper “*Imagination and the Infinite – A critique of artificial imagination*” the philosopher of technology Yuk Hui investigates the idea of artificial imagination in the context of thinkers like Kant, Heidegger and Leibniz, arguing that all imagination and creativity is already artificial, thus making it “[...] more productive to develop an organology of artificial imagination.” (Hui, 2023, 5). Hui argues the mistake would be to equate artificial imagination with human imagination, as this would cloud the actual problem, referring to it as *conflict of faculties*¹² as Kant would say, thus implying a conflict between the philosophical question of imagination and these technologies in their political context (Hui, 2023, 6-8). Starting with Hegel’s “bad mathematical infinity”, Hui builds the analogy between the mathematical infinite and the aesthetical infinite. Hui thus derives an imagination as the possibility to comprehend the infinite within the finite, in a German tradition of Kant, Hegel, and Leibniz (Hui, 2023). In this sense artificial imagination is not to be betted against human imagination but rather as a new form that allows imagination after computation. So, Hui wants to see how humans can be creative in the age of machines and concludes that machines enable a new form of aesthetic framing it as the act to “[...] look for creativity beyond computation, via computation” (Hui, 2023). Two points stand out within Hui’s observations: a) if there is artificial imagination, it is different from a human one, and b) artificial imagination might fill an unobtainable position for human agents.

This leads to a crucial distinction: artificial art that is intended to mimic human one, thus attempting to copy human creativity, and artificial art that is intended to work with AI’s version of creativity, creating pieces that aim at something computational rather than human. As of now, it is enough to note that in the relational aspect of creating AI art, one can find three points of possible creativity: the programmers, the prompters, and the AI, and with Hui, one can assign a form of artificial creativity that is distinct from human creativity. Thus, enabling one to assign a form of creativity while re-enforcing that AI, as of now, is lacking awareness, emotionality and intentionality in the sense of human agents, therefore probably lacking human creativity. But Hui opens a new branch of this discourse, asking if AI demands a new realm of perception and discussion. Maybe the question of tools and creativity is in vain, as AI signifies

¹² A theory developed by Kant in his work “*Der Streit der Fakultäten*” in which he examines what he calls higher faculties (law, theology and medicine for example) and low faculties (philosophy), their respective roles and how they relate to each other. The higher faculties are ranked higher as they directly relate affairs of the clergy or the government.

a paradigm change in general that demands an all-new terminology and understanding of art and its underlying processes.

Others, like Mazzone and Elgammal, attempt to show that AI can be creative. Mazzone and Elgammal work with so-called Creative Adversarial Networks (CAN). These programs combine two opposing instructions: a) follow the aesthetics of the presented art and b) do not emulate an existing style (Mazzone & Elgammal, 2019, 3). The idea is that this leads to the AI generating new images that still feel grounded in human art. Their program, AICAN, performed so well that only a few people could tell what was made by AI and what was not (i, Mazzone & Elgammal, 2019). But they also highlight how the AI is very limited in what it can do and how its creativity can operate, thus not rivaling human artists in most regards (Mazzone & Elgammal, 2019). Others argue that AI and humans can enter a form of co-operational mode or that AI simply is creative. Wellner draws from Husserl in arguing that using AI means entering a “co-shaping” process in which the AI provides the material, and the human operator provides the meaning (2022). Within this process, Wellner ascribes the AI the capability to create art but adds that this is only possible in the context of co-shaping or co-creation, meaning that there is a need for a human collaborator. In a more general framing, Kantosalo & Toivonen explored the notion of human-computer co-creativity. In their paper, computers are framed as collaborators that inter- and intra-act with their human counterparts and in which the computers are creatively active (Kantosalo & Toivonen, 2016). This shows that even without considering AI explicitly, the human-machine co-operational status has been argued for. But here the machine only matters in the context of cooperation. In a more practical approach, the cooperation aspect has been investigated by Lee et al., in their paper “*When and How to Use AI in the Design Process? Implications for Human-AI Design Collaboration*”. (2024), in which they categorized AI design support systems to work out the optimal moments and forms in which AI can help humans during a design process. Hitsuwari et al. Investigated this relationship by letting humans and AI create haikus alone and together, concluding that the AI haikus with human intervention scored the highest on their beauty scale (2023) implying a productive co-operation between machine and human.

So, when it comes to ascribing creativity to AI, we are faced with three broader positions: a) art is or can be creative in the same sense that humans are, b) AI can be creative but only in a way specific to the technology and thus not rivaling human creativity, c) AI is creative in a sense of co-creation. One can potentially revoke all positions by anchoring creativity in a prerequisite that only animate beings fulfill, but there are still arguments that at

least pertain to the idea that AI has developed a form of artificial creativity. It is important to note that all positions are still dependent on the human element, as none argue that AI can do the same thing as human artists can. In either case, denying or ascribing creativity, the human element remains essential. This poses the question of the role of the prompter and the creativity of this act.

II.II The creative act of prompting.

It seems intuitive to ascribe creativity to using text to convey an idea so that a machine can understand it. One needs to figure out what words lead to which results, which instructions are too long, and so forth. In their paper “*Prompting AI Art: An Investigation into the Creative Skill of Prompt Engineering.*”, Oppenlaender et al. (2024) explore prompting as a new skill that needs to be learned. Taking the Discord for the art generating AI Stable Diffusion as an anecdotal example, we can see that certain words seem to increase the performance of the AI art (Oppenlaender, 2024, 2). For example, “*elegant*”, “*luxury*”, “*octane render*” “*trending on*”, “*by Greg Rutkowski*¹³” and “*artstation*”. Oppenlaender et al. (2024) argue that these words imply rather counterintuitive combinations of words that would most likely not appear if a human would communicate their desired image to another human. Yet, these amplifying words reveal something interesting about the underlying code the author of this thesis only noticed due to his hobby: the card-collecting game *Magic The Gathering*. The name Greg Rutkowski refers to a very successful fantasy artist who regularly paints for companies like Wizard of the Coast, having his art in *Dungeon and Dragons* Rulebooks and countless *Magic The Gathering* cards. Another word that appeared was “artstation”. This probably refers to the website artstation.com, a platform for artists to display their portfolio and website that features about 207 artworks of Greg Rutkowski (*ArtStation - Greg Rutkowski*, n.d.). It appears that his artworks are heavily featured in the training data of various art-generating AI, resulting in him currently being part of a class action lawsuit against Stability AI LTD, Midjourney, Inc., DeviantArt, Inc., and Runway AI¹⁴ (Schrader, 2023). While it is impossible to prove anything without accessing the data set at the time, these pieces of information indicate that the training data worked with the work of Rutkowski, turning the amplifier terms found by Oppenlaender et al. into puzzle pieces that indicate some aspects of the AI.

¹⁴ This names all the major companies that offer the service of art generating AI.

This could mean that the creativity of prompting means a better understanding of the AI at hand. Depending on the training algorithm and the provided training data, one gets vastly different results. The prompt quality is naturally dependent on these factors, but it is also dependent on how well a person can “communicate” with the machine. Creativity, in this case, could thus mean finding the words that appear to have a substantial leverage in the training system of the AI and using them, or in trying out unconventional words to achieve a specific result. A prompt about dogs might have nothing to do with “elegant,” but simply adding the term might increase the quality of the resulting images. Another factor is the length of the prompt. The more terms the AI must incorporate, the more diffused the result. Thus, a form of creativity might be to minimize the number of words in a prompt without generating worse images.

In their study, Oppenlaender et al. tested their subjects on three aspects: a) testing participants’ understanding of prompt quality, b) testing participants’ ability to write prompts, and c) testing participants’ ability to revise their own prompts (2024, 4). In this context Oppenlaender et al. frame prompting as an unintuitive skill, which needs to be learned. Similarly, Korzynski et al. frame prompting as a skill that will enable high-paying jobs in the future, albeit their prompting includes all forms of AI, not just the image-generating ones. Their prompting skills included art, entrepreneurship, science, and healthcare across forms like images, sounds, and texts. (Korzynski et al., 2023,29-30) Oppenlaender et al. frame prompting as a potential expert skill, but they also highlight how it might be an obsolete skill, as every AI, and often even just updated versions of the same AI, impose a new learning curve (Acar, 2023; Oppenlaender, 2024). This means that one might learn how to understand the amplifier words of a program quickly, but one would need to redo this step for every new iteration of the technology. This resulted in the CEO of Midjourney allegedly advising not to learn prompting, as the change in the technology is too fast (Oppenlaender et al., 2024, 29-30.)¹⁵. What stands out with both Oppenlaender et al. and Korzynski et al., is that both do not delve much into the idea of creativity beyond the intuitive understanding of it.

¹⁵ Oppenlaender et al. quote the CEO of Midjourney via the Midjourney Discord channel, which hosts a weekly public session called Office Hour. As of now I was not able to find the quoted message, as the chat contains thousands of messages.

After covering ideas of creativity, the next section presents general techno-philosophical ideas that propose certain viewpoints on AI. While many of these works not yet directly reference AI art, their overall ideas would have a clear impact on one's perception on art generating AI.

II.III Cyborgs, Skin-Bags and Post-Humanism

In 2009, F. Allan Hanson published his essay "*Beyond the Skin Bag: on the Moral Responsibility of extended agencies.*", in which the professor of sociocultural technology explores the notion of extended agency in the context of the emergence of ever-smarter computers. The tension at hand is between methodological individualism (the idea that an action can only be ascribed to a single human person at a time) and joint responsibility (the notion that actions can be performed by two or more entities) (Hanson, 2009, 91). While's focus lies on the question of moral responsibilities, his starting point is "The growing prominence of computers in contemporary life, often seemingly with minds of their own [...]" (Hanson, 2009, 91), asking if computers reached the point in which they are to blame for certain actions or parts of actions. While not directly addressing AI, this idea of human-machine interaction plays a large role in philosophical fields like trans-humanism, post-humanism, and critical post-humanism.

All three of these directions seek to overcome or change the anthropocentric worldview postulated by humanism. For trans-humanism, the idea of the cyborg is the guiding ideal, envisioning a fusion between the body and the mechanical that emancipates humanity from its current flesh-bound form (Loh, 2019, 32-78). In the trans-humanist framework, the question of this thesis makes little sense, as it strives for artificial augmentation of the body wherever it can (Loh, 2019). Technology is generally seen as a force of improvement, meaning that trans-humanists are more likely to highlight the positive effects of art-generative AI. Maybe even beyond that, the trans-humanist approach would work at incorporating art-generating AI into the augmentations of the body. This would align with the trans-humanist idea of improving humanity by adding skills through technology (Loh, 2019, 41-45).

Whereas the trans-humanist attempts to modify the flesh, the post-humanists strive to emancipate themselves from the human form itself (Loh, 2019, 31). Here, visions of swarm-AI or super-AI are seen as potential mechanisms to help humanity while replacing humanity as the highest life form (Loh, 2019, 99-120). Driven by collectivist tendencies and ideas of uploading one's mind, the post-humanists share much with the trans-humanists (Loh, 2019, 20). In this case, AI is an even more vital central point, meaning art-generating AI will probably

not face much opposition, as a super-AI is seen as somewhat inevitable if it is possible to create some (Loh, 2019).

Critical post-humanism strives to overcome the framing of humans postulated by humanism (Loh, 2019, 31). This entails an overcoming of the mind-body duality and a general aversion to anthropocentric positions (Loh, 2019). Critical post-humanists like Braidotti, Barad, or Haraway question the idea of the enlightened human as the pinnacle of creation and ask what role animals, objects, and the collective plays in creating the world as we know it (Loh, 2019, 137-162). This framework rejects essentialism and asks what abilities, only ascribed to humans, could also appear in other things or even objects (Loh, 2019). The relation to AI in this context is ambivalent. Works like Donna Haraway's *Cyborg* evoke the figure of a cyborg as a technologically liberated subject (Haraway, 1995), and critical post-humanists are hesitant to ascribe an ability like creating art solely to humans.

On the other hand, they display strong social-constructionist tendencies, which are eager to point out where economic and social developments shape us and our world through the objects created within a certain context (Loh, 2019). Barad's agential realism, for example, could be used to radically question the implied dichotomy (something being just a tool or something else) of this thesis research question while at the same time highlighting how our intra-actions with technologies impact and shape us, meaning AI could change us more than we are aware of (Barad, 2020). Mellamphy brings up non-humanistic theories as alternative frameworks for AI in response to the expected demand for human-centered AI (Mellamphy, 2021). In contrast, Erich Prem highlights a new emerging critical post-humanist section with digital humanism (Erich Prem, 2024). Regarding AI art, specifically, the academic work explores its potential for education or cooperation. Pente and Adams argue that art-generating AI could be a beneficial tool to better understand AI, as well as advance a post-human perception, where the AI is seen as a collaborator and not a tool (Pente and Adams, 2024). Schober investigates AI-generated poetry from the perspective of "posthumanist creativity" (Schober, 2022). Burris and Leander present the idea of critical-posthumanist literacy in the age of AI (2024).

It is also noteworthy that some authors, while not explicitly arguing under a specific non-humanist framework, entertain and argue for such positions. The most noteworthy in this context appears to be Zylinska in her work *AI Art: Machine Visions and Warped Dreams* (2020). In a chapter about creativity, Zylinska brings up the post-humanist framing of creativity not being confined to a human person and that thus the question of creativity of AI being a

misguided question (2020, 54-55). Zylinskas' closing words, mention Donna Haraway, arguing for opening "[...] up the human sensorium to other forms of intelligence and perception, to recognize our entanglement with creatures and machines, to look around, askew." (2020, 154-155).

So, while the trans, -post,- and critical-posthumanism literature provides productive research, the core approach differs from this thesis. While the research question does not necessarily entail a humanistic worldview, it explicitly excludes the notion of perceiving AI and humans as one and the same. The thesis assumes that the human act of creating art could differ from the act of generating art via AI. While the assumption is not that AI cannot do art, the assumption is that generating art via AI is fundamentally different.

This summary shows that even though the technology is brand new, there is a productive and vast discussion regarding the question AI art. It is apparent that the status of art and AI as artists are of increased interest to many scholars. At the same time, the sub-field of art-generating AI is new enough to be full of unexplored potential. This means that the choice of topic cannot always be oriented alongside the existing discourses but is probably embossed by personal preferences. As this niche has become relevant over the last five years, there are many construction sites, leaving much freedom but few reference points.

The next sections will discuss the literature on Arendt, art and AI.

II.IV Arendt, Art and Artificial Intelligence

The literature on Arendt is, as one might suspect, enormous. But the number of relevant English or German publications shrinks substantially when it comes to the interplay of Arendt and art or AI. The following two sections will provide a summary of the fields being discussed at the moment and highlight the research gap for this thesis. The first subsection covers the relevant literature on Arendt and art, followed by the second subsection discussing Arendt and AI and the potential research gap.

II.IV.I Arendt and Art

As art is simply not a significant focus of Arendt's work, it is to be expected that the literature on this intersection is substantially smaller than the literature on Arendt and politics or Arendt and freedom for example. In German, a significant book in this context is *Künstlerisch Denken: Hannah Arendt und die Künste* (2007), published by Wolfgang Heuer and Irmela von der Lühe. This collection of essays gathered 18 authors who wrote about art in the context of Arendt. As

Arendt regularly quotes poets and literature, a whole section of the book is dedicated to poetry and Arendt. In contrast, the others contemplate visual arts, thinking and judgment, and the politics of art (Heuer & van der Lühe, 2007). One can broadly categorize the essays into three categories: a) reflections on a specific art form, b) politics within art, and c) reading other authors through Arendt in the context of art. In their preface, the publishers bridge Arendt's political work with her documented interest in art and especially literature, arguing that her interdisciplinary body of work is itself the result of her artistic thinking (Heuer & van der Lühe, 2007). Referring to an entry into Arendt's thought journal regarding the interplay of an interpretation by Heidegger and Cézanne's views on modern art by, Heuer and Lühe write about how the attention Arendt pays to the similarity between pondering and art, when approaching the »unspoken«¹⁶ lies at the basis of her thinking (Heuer).

One essay of particular interest to this thesis is "*Sein als Erscheinung, Demontage der Metaphysik: Hannah Arendt und die bildende Kunst*", by Annette Vowinckel. While Vowinckel does not focus on the act of creating art, she highlights how art played a role in Arendt's life beyond the brief glimpses presented in the *The Human Condition* and other works (Vowinckel, 2007, 97-100). Vowinckel roams Arendt's works as well as her letters to Karl and Gertrude Jaspers, Marcel Reich-Ranicki and her husband Heinrich Blücher (Vowinckel, 2007, 102-108). Vowinckel argues that the fine arts fulfilled three aspects for Arendt. Next to the manifesting of the world, which Arendt discusses in *The Human Condition*, Vowinckel points out how pieces of fine art fit into Arendt's aversion to ascribing causality to history in the sense of one event providing the reasons why the following event took place (Vowinckel, 2007). To Vowinckel, Arendt might have perceived fine arts as a means to manifest the world without imposing a causality of historical processes. Thirdly, Vowinckel analyses the letters between Arendt and her husband, Blücher, and letters sent out by Arendt to friends and colleagues. In them, Vowinckel finds remarks and references that heavily imply that Arendt and Blücher actively engaged with fine arts wherever they could (Vowinckel, 2007). Vowinckel bases this on the notation of regular visits to the museum or references by Blücher that implied that Arendt

¹⁶ In the referred section, Arendt extrapolates the idea of art being centered around something unspeakable. Unspeakable not in the sense of gruesome or vile but in the sense of something-that-cannot-be-communicated (Heuer & van der Lühe, 2007, 11-12.). The idea being that all the words of a poem for example serve to approximate the essence of an idea that is unspeakable (Heuer & van der Lühe, 2007).

was familiar with artists like Cézanne and Grosz (Vowinckel, 207, 108)¹⁷. While Vowinckel herself points out that these arguments are circumstantial, noting that it is regrettable that Arendt herself never elaborated on her views on art, the presented sources convey the image of a Hannah Arendt far more involved with the idea of art, than the glimpses in her core body of work would suggest.

Another substantial book in this context is *Doing aesthetics with Arendt: how to see things* by Cecilia Sjöholm, in which she aims at extrapolating a coherent line of Arendt's arguments regarding art and aesthetics and making them relevant for modern readers (Sjöholm, 2015). Especially in the Chapter "*The Work of Art*", Sjöholm highlights how important art, especially literature and poetry, was to Arendt and how much Arendt's short exploration of art reveals in the context of authors like Kafka, Blixen or other philosophers like Merleau-Ponty (Sjöholm, 31-67). Sjöholm also works out in detail just how much art plays a role in properly understanding Arendt's politics and how art and especially stories and narratives, play a role in creating a "[...] web of realness that makes action possible, producing both the futurity of natality and the forgiveness of the past." (Sjöholm, 2015, 67).

Others used these glimpses to investigate the creation of art as a fundamental human activity. For example, Karppinen's essay, "*Craft-Art as a Basis for Humane Activity*", investigates craft-art and art-education as activities that fall under Arendt's work and action (2008). Mun Yee Lee takes a similar approach to Arendt in his essay "*The Pursuit of Memory: Examining Art Teaching and Pedagogical Practices through Hanna Arendt's Actor-Spectator Theory*" (2011). Watanabe uses this perspective to reflect on using Artificial Intelligence in education (2023a).

In "*Art, Politics, and the Complexity of homo faber in Hannah Arendt's Philosophy*", Čelutka argues that work is a more complex idea than most give Arendt credit while also highlighting the relevance of art in the political (2024). Čelutka, quoting other Arendt scholars like Sjöholm and Tsao, highlights how art not only remembers, thus proving indispensable for the political but also how the "[...] uselessness of art reveals its supreme meaningfulness." (2024, 279) as art constitutes exemplarity, concluding that one can differentiate between a utilitarian-instrumental mode and a cultural-artistic mode of *homo faber* (Čelutka, 2024, 285). Where Čelutka sees Arendt's plurality and nativity in the cultural-artistic dimension of work

¹⁷ For example a reference by Blücher towards Robert Servatius, the legal defender of Eichmann during the trials of Jerusalem, marking that the legal defender could have been made up by the painter George Grosz.

as well as in action, Fry argues “[...] that Arendt does not aestheticize politics or believe that political actions should be interpreted through aesthetic categories”, thus advocating for a clear separation between Arendt’s idea of action and work (Fry, 2001). This dimension between art and politics is explored in other works too, for example, in Kogler’s *Denkfiguren des Politischen nach 1945: Zu Politik, Kunst und Wissenschaft bei Hannah Arendt*, which explores the tension between art and politics in a time of repeated crisis (2023). Others highlighted figures of Arendt, like Nativity, within artistic works (Hansen-Löve et al., 2014). Lehmann (2022) investigated how the eternal aspect of Arendt’s idea of art could relate to the actual sustainability of a work, both in a physical and cultural understanding, in her paper “*Gedankendinge. Semâ Bekirović, Hannah Arendt und das nachhaltige Kunstwerk*”.

Another aspect can be found in the deep friendship between Hannah Arendt and Walter Benjamin, which resulted in scholars investigating how their respective works influenced each other. Emerling wrote about the concept of the transmissibility of art in the context of Arendt and Benjamin in her essay “*An Art History of Means: Arendt-Benjamin*” (2009), while Mahrdrdt explored the dimensions of Arendt’s Benjamin essay (2007).

To summarize, one can see how the spare spotlights on art that Arendt provided garnered various authors and ideas around them. While relatively small when compared to the extensive literature on Arendt’s political and ethical work, her ideas on art still provide productive starting points for the fields of education, art theory, and politics. Furthermore, one could see how the connection between art, working and action led to productive discourses. The next question is the current stand on Arendt and AI.

II.IV.II Arendt and AI art

When turning to Arendt in the context of AI, the general literature gets broader, while the one focused on this thesis’s question turns narrower. Essays like “*Exploring Totalitarian Elements of Artificial Intelligence in Higher Education With Hannah Arendt*” (Watanabe, 2023b) or “*Hannah Arendt’s Machines: Re-Evaluating Marketplace Theory in the AI Era*” (Schroeder, 2020) seek to make sense of AI’s Impact through the lens of Hannah Arendt. Kaspersen et al. discuss Arendt’s banality of evil in their podcast to ask if current trends are creating a form of banal evil with AI (2023), while a research seminar at the USC Annenberg discussed the interaction between AI and what Arendt referred to as “common reality”. (AI, AR, and Arendt, n.d.)

As one might expect, the intersection of AI art and Arendt is significantly less developed, mirroring the ratio between the literature on Arendt's political work and that of her work on art. Nonetheless, the question of this thesis appears to have its finger on the pulse of time, as essays appeared over the last three years that connect Arendt's ideas on action, labor, and work with art-generating AI. In a blog post, Werner argues that one ought not to substitute Arendt's actions between persons with actions by AIs with the example of ChatGTP (2023). Similarly, Berkowitz (2023) posted some thoughts regarding AI and *The Human Condition* on the site of the Hannah Arendt Center for Politics and Humanities. In another blog, Harington presents his thoughts on how Arendt's action ontology relates to home-office work and the usage of AI (2024), while an upcoming 2024 lecture by Dr. Rodriguez Fielder inspects *The Human Condition* in the context of art, culture, and AI (*Hannah Arendt in the Age of AI* | CLAS Resource Site | *The University of Iowa*, n.d.).

Tackling the topic from the perspective of "Is AI art, art?" and "Do we need artists in the time of AI?", Dorothea Winter investigates the topic through the lens of Kant and his ideas on art, while using Arendt as contrast in her essay "*Aesthetic Aspects of Digital Humanism: An Aesthetic-Philosophical Analysis of Whether AI Can Create Art*" (Winter, 2024). Iris van der Horn also uses Arendt (among others like Foucault, Benjamin, and Hegel), to tackle the question if AI can create art in her paper "*The Art of Artificial Creation: A Philosophical Guide towards Approaching Image Generating AI*" (2023), concluding that under certain perspectives, AI can be seen as an artist (Horn, 2023, 34-35).

These papers, blogs, and courses imply that this thesis is part of an emerging facet of philosophy that combines the brand-new with the familiar. It is brand-new, not in the sense of never done, but in the sense of the next iteration of philosophers, scholars, and artists trying to make sense of a rapidly evolving technology. While the combination of Arendt and AI art is thus not a complete novelty, both the focus on her work alone and the focus on the human agent, rather than questioning the ontology of the machine, reveal a gap in the current English and German research. In this context, this thesis will focus on *The Humane Condition*, while leaving out other essays of Arendt or her thought-diary. While her thought-diary provides intriguing insights, it contains unfinished thoughts or demand engagement with other philosophers, which would go beyond the scope of this thesis. Speaking with Vowinckel one can maintain that art meant much more to Arendt than implied by her theoretical work.

III. Arendt; Action, Labor and Work.

This chapter covers a brief summary of Hanna Arendt's *The Human Condition*, a more in-depth exploration of her ideas regarding art and art creation before closing the chapter with an exploration of the literature in Arendt and her overlaps with art and AI, arguing for a research gap filled by this thesis in the process.

It is important to note that this thesis primarily draws from Arendt's German translation of *The Human Condition*, called *Vita Activa: oder Vom tätigen Leben*. This is due to two main reasons. The first is that Arendt published her English version first in 1958, followed by the German version two years later in 1960. As the German Version is not the same it is possible that Arendt added and expended upon certain ideas, formulations and terms. As a German native speaker and someone who is accustomed to English scholarly philosophical work, the author of this thesis found the German version to be richer and more useful in the chosen terminology. Secondly there are scholars who argue that it is difficult to read Arendt only in English as she made questionable choices in her translations (e.g. Brauer, 2007) while others highlighted the productivity within the fact that Arendt wrote in multiple languages (Chorley-Schulz, 2024). In an interview from 1964, Arendt says, that to her, what remained from pre-war Germany, was the language (Arendt, 1964). Arendt tells how she always kept a certain distance with English and French, and that in German, she allows herself things that she wouldn't in other languages (Arendt, 1964). Thus, there is evidence that the German version is a more accurate or polished one, when it comes to the question of which language best express her ideas. Thus, this thesis also hopes to make a humble addition to the subject of reading Arendt in either German or English.

III.I Labor, Work and Action

“Wie immer es damit bestellt ist: was ich vorschlage, ist etwas sehr Einfaches, es geht mir um nichts mehr, als dem nachzudenken, was wir eigentlich tun, wenn wir tätig sind.“ (Arendt, 2019, 14). These words are emblematic for Arendt's *The Human Condition* (or *Vita activa oder Vom tätigen Leben*) and her exploration of being active. Arendt takes our activities of being in the world and splits them into three categories: labor, work and action (VA).

Labor is the perpetual activity that humanity does to survive and nourish itself by creating consumer products in the sense of food, clothes, and so on (VA, 98-129). Labor is possible because humans manage to produce above their consumption, meaning that we

produce more food than the amount one would need to provide the energy for the creation of said food (VA, 104-110). The results of labor vanish upon consumption as food gets eaten and clothes wear out. Furthermore, labor has no clear end (VA, 104-110). There is no point in being done with producing food, as the products of labor are never meant for longevity.

Work, or in the German version, “herstellen” (generally translated with creating), results in tools and the means for work. The farmer commits labor when plowing the field, but the smith works when creating the plow. Arendt draws the analogy of the work done by the body and the work done by the hands, thus differentiating between animal laborans and homo faber (VA, 161). Opposed to the results of labor, the products of work are marked by longevity (VA, 161-164). Arendt highlights how the process of homo faber is always violent, as they must ravage nature to create the tools (VA, 165). But the critical aspect of the work of homo faber is that it reifies the world (VA, 165-181). By creating tools and objects that remain after being used, societies could build beyond their consumption and even beyond their lifespan. While all tools and objects eventually wither or break, thus needing to be replaced, a well-made plow can be used many times, while the harvested potato survives only one instance of consumption. Furthermore, work can be fulfilling and provide a purpose. Arendt locating art creation in this action category is the focus of part *III:II The constant world and the artwork*.

Lastly, there is action. Action describes our deeds and our words when interacting with each other. For Arendt, our very Being is only comprehensible in plurality. One grows up, lives, and dies interacting with people. Our Being, thus, is defined by communicating ourselves to others and vice versa. Whereas the result of work and labor can be destroyed, the result of Action can never be undone. Only the consequences of words and deeds can sometimes be mitigated. In Actions, we reveal who we are. The otherness of being an individual amidst plurality is revealed through action. Action also enables change and the birth of the new. Here, Arendt’s famous idea of natality comes into play. The idea is that upon the condition of being born, there is the inert capacity to start something anew. Arendt writes: “[...] which is inherent in Action like an ever-present reminder that men, though they must die, are not born in order to die but in order to begin.” (HC, 246).

We labor to survive; we work to prevail and act to tell who we are. Art can be found in both work and action. In work when it is created, as well as its effect of being a reifying object and in action as we reveal ourselves when sharing our art with others. The following section explores art in the context of work in more detail.

III.II The constant world and the artwork.

Through work, humanity has created stability within a chaotic world. As we have seen in the previous sections, work harvests nature to transform it into new tools, machines, or structures. Work is usually done with a goal or purpose in mind, a purpose that is infused into the produced object. This purpose is furthermore intuitive for most people of a shared society, the hammer, for example, is realized as a tool to nail something and so forth. The artwork for Arendt is an object created without a purpose in the same sense as the other things being produced (VA, 201-203). As it is unique, it is without any value in the sense that any market price is arbitrary, as something unique is untradable (VA, 201-203). In this sense the work of art differs heavily from other forms of work. Work, for Arendt, is purpose driven and the means to specific end (VA, 181-189). The tools produced by Homo Faber are not only means to an end, they are produced and organized specifically as the means to an end (VA, 181). Art on the other hand is work but it is not created as a means to an end. Art is simply work done for the sake of being done, without sharing the same purpose or value as all the other results of work (VA, 201-209). But these objects of art, without value and purpose, are the most stable and thus the most worldly of objects. While other goods and commodities are consumed, art pieces remain untouched upon their “consumption”. Arendt brings the example of a chair having its purpose fulfilled once we sit on it, while art in this context has no “purpose”. It won’t matter if we look at it or not, it won’t wear out the painting. This does not mean that Arendt claims that works of art are indestructible. A painting can be destroyed, mistreated, and not adequately stored, but the moment of its consumption or usage does not impact it.

Similarly, one must conserve food or take care when moving a chair, the piece of art must be taken care of. But while the chair will wear out, the food will be consumed, and the hammer will eventually rust away, the painting can remain untouched and in mint condition across centuries, all while serving the eyes of millions. To this, Arendt writes:

“Es ist, als würde in dem Wahren des Kunstwerkes das weltliche Dauerhafte transparent, und als offenbare sich hinter ihm ein Wink möglichen Unsterblich seins – nicht etwa der Unsterblichkeit der Seele oder des Lebens, sondern dessen, was sterbliche Hände gemacht haben; und das Ergreifende dieses Tatbestandes ist, daß er nicht eine sehnde Regung des Gemüts ist, sondern im Gegenteil greifbar und den Sinnen gegenwärtig vorliegt, leuchtend, um gesehen zu werden, tönend, um gehört zu werden, in die Welt noch hineinsprechend aus den Zeilen des gelesenen Buches.,
(VA, 202).

So, for Arendt the artwork reveals a form of eternity enabled by the hand's creation. She highlights how this circumstance is not just a desire of the mind but something that we factually experience. We hear Beethoven's 9th Symphony, read Homer's *Ilias*, and marvel at Michelangelo's Sistine Chapel. The materiality of the created world is thus apparent within the works of art, which also highlight how creation is constructing the world beyond our lifetime. To summarize, art pieces for Arendt fall under the category of work and not labor while being objects that reinforce the world created by men (VA, 201-212). But what happens when one creates art according to Arendt? For Arendt, creating art, means to express the very human attribute to thought. She writes:

„Wenn Gebrauchsgegenstände ihre Existenz der menschlichen Geschicklichkeit verdanken, Gegenständliches zu brauchen und zu nutzen, wenn Waren ihre Existenz der menschlichen »Neigung zum Tauschen und Einhandeln« (Smith) schulden, dann entstehen Kunstwerke aus der menschlichen Fähigkeit, zu denken und zu sinnem. Alles dies sind wirkliche Fähigkeiten des Menschen, und nicht bloß Attribute eines der Gattung Mensch angehörenden Lebewesens, wie Gefühle, Bedürfnisse und Triebe, auf die sie sich allerdings beziehen können und die oft ihren eigentlichen Inhalt bilden.“ (VA, 203).

Arendt roots our capabilities and actions in essential human traits. The dexterity to use and create objects is cause for us to create, based on Adam Smith, the creation of markets is caused by our propensity to trade and exchange, and art is thus linked to our unique capability to think, reflect, and act rationally. But this does not mean that Arendt claims that all art is situated in the rational but rather that all art is transformed by thinking or pondering (VA, 202-204). What she means by this is that the emotion, the ideas and thoughts, felt by the artist are transformed until they manifest in the world, filling the world, while also being limited by it. The emotion inside oneself is turned outside and manifested in a similar motion and manner as anything else that is created (VA, 204). In this sense, art is the reification of thoughts. But this must be understood less in a purely rational fashion and more in a meditative one. Arendt's words are “[...] das sinnende Denken [...]” (VA, 204). In German, the term “sinnen” describes thinking in the sense of being lost in one's thoughts or directing one's desires at something and reflecting (*sinnen – Schreibung, Definition, Bedeutung, Etymologie, Synonyme, Beispiele*, 2022). So, this thinking that causes art for Arendt is less of a cold, calculating, rational, and more descriptive of the human capacity to formulate thoughts and materialize them in the world.

In this context, Arendt distinguishes between thinking, cognition and logical reasoning (HC, 170). Thinking in the context of Arendt's forms of actions means a never-ending process that is only demarcated by birth and death (VA, 206). On the other hand, cognition is a finite process that results in understanding; thus, she associates recognizing with natural sciences and thinking with philosophy and the creation of arts (VA, 206). The reason for this distinction is that Arendt argues for a more refined understanding of rationality that, on the one hand, highlights its relevance for the human position amidst the world while differentiating us from a mere being of rationality and logic. In this context, Arendt argues against Aristoteles and his idea of humans as animal rationale as this would mean that we are nothing but computers (VA, 208). Arendt argues that the misconception lies within equating rationality with intelligence as if it is only intelligence that differentiates us from animals and computers that would be superior to us in the same manner. But for her, thinking, recognizing, and pondering mark different forms of rationality and, thus, different facets of intelligence. For Arendt the supercomputers of her time are like other machines, as they are mere objects that amplify the laboring power of humanity. In the supercomputers case Arendt argues that they amplify our power to calculate and conduct logical operations (VA, 208). This is the point in our explorations where the time between this thesis and Arendt's explorations becomes palpable. We know by now that computers can do much more than just calculate, simply because we have found ways to integrate calculations and operations into new modes (for example, creating artwork through calculations). So even though the core principle of programming has not changed since *The Human Condition*, the technology experienced giant leaps in how one can leverage this technology. But with all its complexities, AI is still a series of commands based on 0 and 1, thus making Arendt's thoughts regarding Supercomputers more usable today than one might assume.

The art form that is the closest to its original thought in this context is poetry, according to Arendt. A medium that she calls the most human and least worldly form of art (VA, 205). Poetry can be applied without any material if needed, as it materializes itself in words and rhymes that can be memorized and then performed. At the same time, this makes it a form of art that is the least materializing within the world, only touching the glimpse of eternity when it is written down. This materializing of all the things created by homo faber plays a vital role in creating a stable world for mortal humans, in which actions and the spoken word manifest themselves into a permanent place (VA, 212). The tools provided by homo faber enable heightened productivity which in return enables a life beyond a struggle to stay alive. Both

aspects of homo faber, the creation of purposeful things like tools as well as the creation of art, furthermore, lead to remembrances of existence that go beyond death. Arendt writes:

“Insofern aber Sprechen und Handeln die höchsten und menschlichsten Tätigkeiten der Vita activa sind, ist die Welt eine wirkliche Heimat für sterbliche Menschen nur in dem Maße, als sie diesen in sich flüchtigsten und vergeblichsten Tätigkeiten eine bleiben Stätte sichert, als sie sich dafür eignet, Tätigkeiten zu beherbergen, die nicht nur völlig nutzlos für den Lebensprozeß als solchen sind, sondern auch prinzipiell andere Natur als die mannigfaltigen herstellenden Künste, durch die die Welt selbst und alle Dinge in ihr hervorgebracht sind.[...]denn so viel ist sicher, das Maß für die Welt ist nicht die zwingende Lebensnotwendigkeit, die sich in der Arbeit kundgibt, und es kann nicht in dem Reich von Mitteln und Zwecken gefunden werden, das maßgebend ist für die Herstellung der Weltdinge und maßgeblich noch für den Gebrauch, den wir von ihnen machen.“(VA,212).

This implies an exciting spot for art in Arendt’s theory, as it is an essential force of materialization, thus playing a vital role in making the world a stable place. Sjöholm points out how Arendt can be read in the light of her work in post-war Germany, where she helped map the remains of Jewish cultural heritage, meaning Arendt witness how the reifying effects of art can be shattered (Sjöholm, 2015, 32). Arendt presents a sort of ontological root within a human trait, but she refrains from defining art. On the one hand, Arendt seems just to accept that humanity has created art for centuries, while on the other hand, she presents the idea that it is here to help manifest our unique form to ponder and think.

Finally, there is a tension between the German and the English version of Arendt’s work, both published by her. In the English version (which was released first), Arendt uses the terminology of “thought” and “cognition” (HC, 170), while in the German version she uses *Denken* and “Erkennen” (VA, 206). Intuitively *Erkennen* in German would be translated with *recognizing* and not *cognition*. Furthermore, a quote in the original reads: “The thought process by itself no more produces and fabricates tangible things [...]” (HC, 169) while the corresponding German part reads “Das sinnende Denken ist an sich nicht herstellend [...]“ (VA, 204), which intuitively translates differently. “The thought process“ seems to refer to the process of thinking, while in German “Das sinnende Denken”, could be translated into “The pondering thinking”, thus describing a mode of thinking rather than the process of doing so. On the other side, Arendt in English highlights the reification of thought through art by calling

them thought things (HC, 167ff.). As the German version came after the English it could be possible that Arendt detailed some thoughts in the German version. So, while the term “ponder” does not appear in her work, this thesis will use the term as reference to what Arendt refers to as “sinnende Denken”, as it highlights an aspect of art that appears less fleshed out in the English terminology. In this context, creating and consuming art is the process of pondering or using Arendt’s German terminology, “sinnieren”.

Later, art, especially stories and literature, play a notable role in Arendt’s exploration of action, as means to change and impact how people perceive their freedom for action, as well as the political potential within action, as art reifies the stories of others (Sjöholm, 2015; VA, 222-234). But for this thesis the focus remains of art as result of work. The German-English barrier becomes quite apparent as Arendt uses “herstellen” in German, best translated to creating or crafting. Work on the other hand is more like a variation on labor, a distinction that turns more confusing when looking at the overall style of her German translation. By choice of word, content and metaphor, creating or crafting appears as a much more sensible translation than work. Especially this idea that, what Arendt calls work, leads to things that remain opposed to the results of labor, creating seems sensible. To delve into the reasons for this aspect of Arendt would demand a thesis of its own, so for now it is important to just note how sense of work that Arendt conveys in her German version differs from her English version.

Art for Arendt thus contains three core elements: a) it reifies the world by manifesting thoughts into thought-things by thought, b) art not only reifies the world it creates a sense of immortality as it creates something that persists long after its creator and was made by hand c) opposed to the other results of work, art is not purpose bound and carries no inert worth. (VA, 201-212). For this thesis aspect a) will be of the largest significance as it refers to process of creating art. For Arendt the process of creating art describes a moment in which the hands translate inner thoughts into reality, thus reifying the world with what’s inside a person. But this process is tightly connected to the idea of a unique form of thinking that appears to be reserved to humans. A form of being lost in thoughts that creates objects that hold a glimpse of eternity while remaining utterly real and palpable. It is this thinking that could be interesting to this thesis. How does AI impact the act of thought. Or put in better words: do we still ponder when creating art with AI?

III.III The Art of Prompting

So far, we have seen how generative AI functions, what the process of prompting entails, and the role of art in Arendt's *The Human Condition*. Now it is time to see if using generative AI impacts this moment of pondering that Arendt highlights. As there are countless aspects to moment of creation, this thesis can only provide spotlights for chosen aspects. The first is the tension between being inspired and copying something. As many compare the learning of AI with humans being inspired by art around them, this section explores how this could affect Arendt's pondering. The ensuing section ask the question regarding the impact of tools on the artist, reflecting on how using AI to paint could change and modify the artist's behavior and thus influence their moment of pondering.

III.III.I Inspired Copycats or stolen homages?

The tension between inspiration and copying has always been strong within any endeavor that creates something. One can be inspired by certain things and infuse them into one's work. When artists encounter a specific art style, writing style, or film style, for example, they will incorporate this into their work. But at what point is one copying and no longer being inspired by something, and how could it relate to Arendt's idea of art? The focus with this question must lay with the relation of the artist and the action when they copy something or are inspired by something.

A quote from the American writer T.S. Elliot reads:

"Immature poets imitate; mature poets steal; bad poets deface what they take, and good poets make it into something better, or at least something different. The good poet welds his theft into a whole of feeling which is unique, utterly different from that from which it was torn; the bad poet throws it into something which has no cohesion."
(Elliot, 1934, 206)

Elliot acknowledges that creation cannot be done without taking from what already exists, but one must make it their own. So, we have the distinction of merely copying something, repeating the technique, the image, or the style, and we have the idea of stealing what they like and making it their own. According to the music critic Peter Yates, the Russian composer Igor Stravinsky said something similar, attributing the quote, "A good composer does not imitate;

he steals.” (*Quote Origin*, 2013). Iterations of this sentiment can even be found on the blog of the commercial art collective the 1605 Collective when they write:

“When we are inspired by something, we take an idea or concept and make it our own. We build on it, adding our own unique perspective and creativity to create something new and original. In contrast, when we simply copy something, we replicate it without any original thought or innovation.” (1605 Collective, 2023.)

In both cases, we take something existing, but we need to add something of our own to elevate it. In an academic context, this elevation of existing art must be strictly highlighted, or it will be considered plagiarism. In this context, the distinction between inspiration and copying becomes quite clear. If an author inspires me, one must cite them correctly to show what part of their work caused my inspiration. Even if one does not directly quote from them and reformulate the sentence, this needs to be noted. The moment one does so, the reader can see the inspirational source as well as the contribution of the author. If one tries to translate that into Arendt’s terminology of actions, copying or plagiarizing (which is just an attempt to cover up the act of coping) could be seen as labor. The rather dull act of copying thoughts, ideas, or forms without adding anything new. On the other hand, inspiration can be ascribed to creation, especially Arendt’s pondering. The source of inspiration is filtered through the artist’s mind and comes out with a new twist or aspect. As Elliot would put it, the artist steals something only to adapt it into a new framework, context, or presentation mode. In Arendt’s words, the artist ponders or “sinniert” as to how the original idea, springing from the inspiration, can be expressed most adequately.

But depending on the context, the act of pondering, can also appear when the concrete goal is not deception but copying. For example, an art student wants to train in a specific technique. They might want to create a perfect copy of an existing work to improve their skill. In this case, we cannot talk of a mindless act just because it is copying. I would argue that such a process entails quite an amount of pondering, as one must understand how someone else painted something. Wondering how someone achieved a specific technique or mixed a complex hue of violet might just express a weaker form of Arendt’s human trait to consider. A study from the University of Tokyo investigated how imitating artworks that were not within the framework of the participants impacted their creative process (Okada & Ishibashi, 2017). They summarize imitating others in the context of art as an attempt to “[...] infer its purpose or goal, and interpret this within their own cognitive framework.” (Okada & Ishibashi, 2017, 1807),

strengthening this idea that even in copying, Arendt's pondering can be present. This means that copying has two distinct meanings in this context. In the sense of Arendt's action ontology, copying would be a mindless imitation without pondering, while copying, in the normal sense, simply refers to the act of imitating other people's art.

So, what is generative AI's place in all of this? Some proponents argue that the way that an AI imitates is like a human imitating another artist (@elkhearted auf Threads, 2024)¹⁸, but this stance faces opposition from scientists (Fodor, 2022)¹⁹ and artists like Steven Zapata (Zapata, 2022, 00:31:33-00:34:45). Zapata argues that a person could look at drawings by Michealangelo thousands of times, while still not being able to trace or copy his drawings well enough ever to be confused with one another (Zapata, 2022, 00:31:33-00:34:45). Zatapa further highlights how any person who could trace a Michelangelo that well is probably a skilled artist in their own right. Here, one can see the parallels to the already established points about how copying can be an artful act that demands dedication and attention, thus leading one back to Arendt's pondering. The comparison between generative AI and humans, therefore, fails to incorporate the expense of time and effort that a person must commit to copy something. Or in other words, the comparison forgoes the act of pondering. On having to commit to the act of drawing and thus to the act of creation. While it is precisely a key advantage of generative AI to ignore this barrier, it is also the reason why it cannot be the same. To copy them, a person being inspired by others must commit to a tedious process of trial and error, in which they face frustration, joy, and many other emotions. If the inspiration arises from participating in something else to incorporate it with something of oneself, we circle back to Elliot's idea of "stealing" from others. Either way, one can argue that one commits to Arendt's pondering, whereas the machine can only copy without inspiration.²⁰

If the AI can only copy and not "steal", who is getting inspired when humans use generative AI? Due to the arguments provided in the last section, it seems unintuitive to assign

¹⁸ This Thread section is intended to show a more public opinion that can be found online and thus probably in the public. As this thesis is concerned with the human side of the AI debate, insights like this are quite relevant, to better understand what drives some people to use this technology.

¹⁹ The Neuroscientist James Fodor for example argues that we process data fundamentally different, as we need to make more sense of less data. If we would need to "scan" as much data as AI needs to, we would need thousands of years to gain comprehension that a human adult normally processes (Fodor, 2022).

²⁰ It is noteworthy that this conclusion is as of now only possible in the assumed framework of AI not being a sentient entity, that can experience tedious endeavors or conflicting interests.

inspiration to the prompter. If the prompter has the idea, “I want to see the Eiffel Tower painted by DaVinci”, one would not say that the prompter has acquired the skill to mimic DaVinci. One might argue that the point of inspiration lies within the process of adequately prompting the AI. However, the tension between copying and being inspired is especially tricky when the work in question is more complex than just a famous landmark in the style of a well-known artist. In 2022, the Colorado State Fair was confronted with this question during its annual art competition (Roose, 2022).

The artist awarded the blue ribbon in the category of emerging digital artists was Jason Allen, who submitted the artwork *Théâtre D’opéra Spatial* made with Midjourney (Roose, 2022).



Image 9: *Théâtre D’opéra Spatial* by J. Allen via New York Times (2022)

This work has no clear inspiration, and without the original prompt it is impossible to determine what Allen was going for. According to Roose, Allen created hundreds of images and felt inspired by the results he got from Midjourney (2022). Even if one claims that the AI itself is only copying, it is impossible to deny the self-ascribed inspiration by Allen. After posting the winning image on Twitter, Allen garnered a shitstorm, from which some defended him by claiming that his work is nothing different than “[...] using Photoshop or other digital image-manipulation tools and that human creativity is still required to come up with the right prompts

to generate an award-winning piece.” (Roose, 2022). But this framing appears unfit, as Photoshop or other digital tools do not take creative decisions for you. They enable you to manipulate the image at hand, but all other factors rest in the creator’s hand. Put crudely, prompting an image such as the one made by Allen can more likely be achieved by trial and error in different versions of prompts, while it would be much harder to create something similar by trial and error in Photoshop. For the prompt, one needs to master the program’s language, with Photoshop, one needs to master Photoshop and general aspects of art like symmetry, balance, and so forth. For, it is impossible to say if Allen prompted the AI to present the specific symmetry and composition of the three front characters and the sphere, or if the AI presented it and Allen simply liked it. To gain such a result via Photoshop without being able to use the tool properly seems impossible.

To draw from another artform, one can look at movie scores, where the tension between copying and stealing is apparent in how modern movies are made. In their video essay “The Marvel Symphonic Universe”, Zhou et al. discuss why the successful Marvel franchise has not produced any memorable scores across their eight-year run²¹ (Zhou et al., 2016). They name the process of “temp music” as a potential reason. Temp music describes the process of editing scenes before the score is done for a film by using other music as a placeholder (Zhou et al., 2016, 00:06:24-00:07:24). Zhou et al. argue that consequently directors and editors often ask the composer to imitate the temp music, as the scene has already been edited to the rhythm of the placeholder (Zhou et al., 2016 00:07:00-00:10:31). In a group interview, famous film composers like Danny Elfman, Alexandre Desplat or Mychael Danna talk about how temp music affects their work, as directors have listened to temp music countless times and struggle to “unhear” it, making it harder for the composer to create something of their own (Specialist, 2014, 00:35:20-00:39:15). Artistic work can affect us in more ways than a mere inspirational one. It can also form our perception of what we want or what seems reasonable. When we task an AI to generate an image for us, not only could the initial result heavily impact what we can imagine, but the AI itself can only refer to its own temp music or, in other words, the provided data. Like a director who spent much time with the temp music, the AI is bound to refer to what has been repeated countless times within the training data. Only that the prompter cannot make the AI forget to truly work with it. Speaking with Arendt, the pondering or thinking for the

²¹ Eight years at the time of the release of the YouTube Video, with *Iron Man* (2008) being generally quoted as the first film for the Marvel Cinematic Universe.

artist would be precisely to bridge the tension between stealing and just copying but is now largely handing this task over to the AI. The work in this context would have been to grasp the essence of one's inspiration, combine it with one's own visions and thus reify the world by working on the artwork.

This tension between stealing and copying in the context of inspiration, shows how AI impacts a part of the creative process of creating art. The next session investigates how it could impact the style of an artist.

III.III.II Smart Brush

In her Essay "*Il pennello artificioso – Zur Intelligenz der Pinselführung*", the art historian Nicola Suthor investigates the role of the brush in our perception of art and artist. Starting from the 1700 century, in which the brush became a pars pro toto synonym and symbol for artists, she investigates the brush as something more than a mere extension of the hand (Suthor, 2006, 114-116.) Suthor begins her explorations with the piece *Self-Portrait with an Easel* by the French artist Nicolas Régnier, which shows the artist painting a portrait with the composition and direction of light, focusing on the hand holding the brush. Where the painter's black coat covers the materiality of the body, the hand is the only prominent part besides the face that is revealed. Given that this is a self-portrait, this shows an interesting self-perspective of an artist. Suthor notes how elegantly the little finger is spreading from the hand while the brush is mixing a new color, locating the self-image of an artist more within the hand holding the brush than the body as a whole. (Suthor, 2006, 114).



Image 10 *Self-Portrait with an Easel* by Nicolas Régnier, ca.1620-1625

Drawing from art historians and artists of the time, Suthor paints the picture of art description in the 17th century, as the instrument gets nobilified to mean art itself. For example, Suthor quotes authors that locate the artistic inspiration at the tip of a finger and the tip of the brush, thus building up a parallel between the body and the brush (2006, 120).

Starting with a different self-portrait, Suthor exemplifies the common comparison of the brush with a sword, equating the brush of a stroke with that of a sharpened blade (2006). In other instances, Suthor quotes examples like that of the painter Charles Cochin, who highlights the wildness of the brush, of his colleague Jacopo Tintoretto in 1758 (2006, 129). Suthor continues to work out the role of the brush as more than just an object, to the point that it can act like a prison, as the brush creates opportunities and restrictions. It takes experience, skill, and understanding not to let the brush dictate the painter's moves. She writes:

“Diese Selbstvergessenheit der eigenen Mittel in ihrem Gebrauch – Grundlage jeder Virtuosität (das Instrument muss vergessen sein) – ist nicht nur die Notwendigkeit, um sich selbst ‚sprechen‘ zu können, sie ist auch die Bedingung von künstlerischer Freiheit, wie sie im 17ten Jahrhundert zur Grundlage des Kunstschaffens erklärt wird.“ (Suthor, 2006, 135).

Thus, Suthor works out a perspective on artistic freedom that is dependent on overcoming the limitations set by the tools. In this case, the limitation is not what an instrument can do (artistic freedom is not to overcome the limitation of a brush not being a pen) but how the instrument dictates its rhythm and style. In this perspective, the instrument gets something of a life of its own that must be tamed, otherwise the artist is in danger of being a slave to the instrument (Suthor, 2006, 134-134). The instrument can warp the perspective and rationale of artists, according to the art historian Edgar Wind when he writes that “Jedes Werkzeug birgt die Gefahr, dass es den Menschen, dem es dienen soll, versklavt. So hat der Bleistift Meisssonier, Menzel und Muirhead Bone beherrscht, und ihre Wahrnehmung wurde ebenso mechanisch wie ihre Handfertigkeit.”²² (Suthor, 2006, 134). If the tool is not mastered, it changes how the artist perceives, framing the world through the tool instead of using the tool to frame the world. Suthor does not argue that the brush is its own entity or an agent. But she highlights how it is more than just an object and how it changes and affects the artist. Especially the relationship

between the hand and the brush is emphasized, arguing that one needs vigorous training and dexterity so that one's hand can master the instrument and not be mastered by it.

Suthors explorations give us valuable insight into the role of the instrument within the historical context, as well as anchor points toward the relationship between artistic tools and artists. But at the same time, Suthor can only help us so far, given that her analysis is focused on a conception of artistic freedom of the 17th century that was written in 2006, so long before AI art came to be in a publicly relevant way. But the purpose of this spotlight is less to illuminate the field within art history and art-theory but rather to establish that even this notion of the artistic tool interacting with the author, even when the brush is not an entity like an AI. Thus, if the brush can affect and impact the artist, how does AI affect and impact the prompter, for speaking with Suthor, it seems much harder to forget the AI than it is forgetting the brush in your hand.

III.IV Clients and artist, prompters and AI.

Creating art is hard. Most people know that because they know how limited their own skills are compared to the wonders others can produce. But that has not stopped people from trying to express their visions through forms that they have not yet mastered. On the one hand, the option was to learn the craft or be satisfied with results that do not necessarily match one's vision. Another approach would be to ask someone with these skills to realize one's vision. So, what if prompting an AI is more akin to commissioning an artwork with an artist? In both cases, people task other entities to fulfill their vision. In both cases, language conveys what the client wants in their artwork. In both cases, drafts are exchanged with feedback to approximate the desired outcome. Also, client-commission work does not have to entail only non-artists. Many art directors' task other artists to create illustrations and sketches for them because they cannot paint it all themselves. Similarly, artists working with AI might use it to complete the tedious part of an artwork.

In the context of the previous two sections, more similarities appear. When talking about pondering in the context of copying, the prompter seems to neither copy nor steal, as the AI does the actual drawing, like a client who neither steals nor copy. The commissioned artist can steal. While the section argued that AI appears to only copy and not steal, this is clearly contingent on a non-sentient AI as well as other assumptions about AI, thus this might change with technological advancements. Suthors contribution of highlighting the interaction between tool and artist, is mirrored in the client having a similar interaction with an artist. Just as some

artists are maybe the wrong persons for a certain idea, some tools are not fitting a certain vision. While the artist themselves faces this actual problem again, the AI faces Suthor's problem again on technical level. As the data used for training and the code used for programming, heavily influences the outcome, AI can be confined by its own "tools" of code and training data. As the AI is taking countless actions, that the prompter does not have to think about, it at least partially takes over some of the prompters pondering. Thus, the prompter cannot really steal, as they leak the opportunity to truly make an idea their own, as every decision is filtered through an AI that can potentially only copy. Similarly, one can make the point that a client will struggle to steal an idea through the artist, as the commissioned artist is the active entity that engages in the discussed tension between stealing and copying.

Speaking with Arendt the core question must be if one still ponders the same way when using AI, as one does when working traditionally. Looking at Suthor and Elliot there are reasons to believe that AI impacts the way that one thinks and how one translates what's insight, thus changing how one ponders. The next section will explore this problem in the context of the proposed allegory of a client and an artist.

IV. The Art of asking an artist.

Under similar reasoning, namely assigning the AI a vital part of the authorship, the US Copyright Office denied the proposal of Jason Ellen to copyright his award-winning image *Théâtre D’opéra Spatial* (see Section III.III) with the key argument being that Ellen’s artwork consisted substantially of work that is non-human authored (Wilson et al., 2023). The legal scholar Yiyang Mei provided an extensive rebuttal to this perspective in her paper “*Prompting the E-Brushes: Users as Authors in Generative-AI*” (2024). While Mei’s paper is concerned with the legal aspects of realizing prompters as authors to their work, the presented arguments as to why the Copyright Office has misunderstood how text-to-image generators work challenge the arguments brought up in section IV (Mei, 2024). This section will a) elaborate on which arguments presented by Mei do not challenge the arguments of this thesis due to Mei addressing a legal matter and b) respond to the arguments that challenge the assumptions and how one might respond to Mei’s claims. It is important to note that Mei concerns herself with questions of authorship and, thus, ownership that is irrelevant to this paper. The following responses to Mei’s argument are not aimed at claiming that AI artists ought not to claim authorship over their work but that the analogy of prompters and clients can be supported quite well in the sense of an action dichotomy. The following sections aim to highlight how differentiating between creating art traditionally and prompting act serve two different kinds of actions. In Arendt’s words, prompting and commissioning work fall under the category of work, while creating art traditionally can be more associated with pondering.

IV.I Mei’s arguments.

Mei argues that “[...] the Copyright Office has misconstrued the nature of text-to-image generators, labeling them as “automatic” and attributing to them the ability to conceive plans.” (2024, 26). To support this claim, Mei offers five key arguments: a) generative models are the culmination of scientific work, not spontaneous apparitions, b) the AI is statistical depending on input data and input text, “[...] c) their workings are not random, d) they do not possess cognitive abilities; and e) they cannot function independently” (Mei, 2024, 26). It is important to note that most responses to Mei are not rebuttals to her paper but only to her argument applied to the perspective previously established in this paper. Mei’s goal is to establish reasons as to why prompters should be considered authors of art produced by AI, whereas this paper investigates the prompters and their actions. Thus, with some responses, it is the case that the

argument of Mei applies to the question of authorship but fails to address the problem from an action.

IV.I.I Method vs. Chaos.

Mei's first argument is that the iterative process of text-to-image generators is not random, but rather, with each iteration, the prompt specifies what they want from the machine, thus, Mei argues that this is "[...] challenging the misconception that the resulting images are produced randomly." (2024, 29). In the sense of Arendt, this does not change the AI's mode of action. Mei's argument links the non-randomness of text-to-image generated pieces to whether a person should be seen as the author of a piece. Regardless of the legal status, with Arendt, the question is if the constant re-iteration still entertains her pondering or not. One might compare it to an office worker who needs a particular document and keeps sending it back to the new intern until it is how the worker wants it. The same argument counters Mei's second statement that, as the training data is not random, the prompter has the task of selecting the training data (Mei, 2024, 29). The analogy now would be the office worker sending their intern the data for the desired document.

Furthermore, Mei brings the analogy of a student learning different styles (Mei, 2024, 29). But as shown in section [III:III:I](#) a student learning to "steal" a style might be something different than a machine copying it. Finally, Mei argues that Generative Models do not possess any form of creativity (or at least nothing like humans have) thus, humans must be the ones to fill the missing link. This argument fails to consider the possibility that there may be no creativity involved at all. If the machine copies creative ideas, it might be the case that neither the prompter nor the machine can fill out the missing link, as there is none. Imagine a client coming to an artist commissioning work, and said artist traces his work to someone else's. The client sends back the first draft with the wish that, for example, the color should be brighter. The artist (for simplicity, we imagine a digital artist) takes his traced piece, adjusts the color, and sends it back. After a bit of back and forth the client is happy. From an outside perspective, it would be odd to ascribe creativity or pondering to the client or the tracing artist. Thus, the argument of Mei only works if one inherently assumes creativity in such an exchange of actions, but this is something in need of determination first. Speaking with Arendt neither the mode of reifying the world, nor the moment of thought or pondering are inherently given only because the resulting object is an image.

Mei's second aspect delves deeper into three elements of text-to-image generators, latent space, diffusion, and CLIP, and how these mechanisms function (2024, 31-40). Her core argument is that these programs do not display human creativity or intelligence (Mei, 2024, 31). Again, Mei's argument might be used to argue that prompters are the authors of their respective work, but the arguments fail to consider either machine creativity or the general absence of creativity. Mei seems to assume that prompting and generating must display some form of creativity, but as the previous section highlighted precisely, that point is up for debate.

IV.I.II AI lacks human-like creativity and exploring the reluctance of the Copyright Office.

This section highlights arguments also covered in this thesis, mainly that AI has no inherent understanding of what it creates (Mei, 2024, 40-44). Referring to Turing and Putnam, Mei highlights how performing tasks does not mean that the machine shares the corresponding mental state (Mei, 2024, 40-44). But again, Mei makes the mistake of assuming the necessity of creativity in creating AI art and equating this context of creativity with human creativity. This gets clear with the example Mei uses, Turing's Chinese restaurant. Mei compares the AI with the person ordering in the Chinese restaurant, merely as someone manipulating Chinese. But while no one would claim that someone in a Chinese restaurant must speak Chinese, Mei moves to imply that the prompt has to be the creative source, as AI cannot be the origin of the assumed creativity.

In a later section, Mei writes in the context of differentiating subjective and objective evaluations of art "In the case of AI-generated art, people might acknowledge its objective beauty but still reject it due to anthropocentric beliefs." (2024, 44) while also highlighting how AI art is generally evaluated lower, as soon as people find out it was not made by person (2024, 45). Mei frames this as a bias that may have led the Copyright Office to not properly engage with what AI art does. While her paper shows clearly that the Copyright Office showed some vital misunderstandings regarding AI art (how it operates, the level of randomness, and so on), one might object that what Mei frames as a bias is a relevant and legitimate change in perception by people. While AI art may invoke a form of beauty akin to what Kant framed as natural beauty, it is debatable if a reduced excitement for AI art can be seen as a bias. AI does require less technique, time and training to achieve specific results, compared to working traditionally. When someone presents their artwork, one might be amazed at how the colors flow together, how a composition evokes a feeling, or how the choice of the subject tells a

story. Often, the amazement stems from the realization of the complexity behind it. Relating the displayed image to one owns capabilities thus creates a room of comparison that combines a sense of aesthetic with a sense of marvel at the skills behind it. One can see this often with Modern Art, where a typical response is, “Well, I can also paint a blue square”. The discourse around this is way more complex than this, but it hints at a relevant and legitimate dimension of humans appreciating what other humans can create. However, with AI art, no such relation comes into play. This position does not negate the claim that there is effort behind AI art, but it merely postulates that it is less relevant in a human frame. It is this position that Mei’s next section argues against.

IV.II. An artist’s workflow

To further support her arguments, Mei brings three examples of artists working with or through AI. This section will go through all three examples and contrast them with the already established thoughts on Arendt and art to highlight the relevant aspects of Mei’s arguments.

IV.II.I A traditional artist using stable diffusion, explains his workflow.

Stelfie is a fictional AI character sent around history to make selfies by an anonymous artist (Mei, 2024, 50; *Project | Stelfie The Time Traveller*, no date). In a YouTube video by Vox the anonymous artist grants insights into his work progress (Vox, 2023). In a mixture of AI art, photoshop, and Procreate²³ the artist creates the fictional selfie of Stelfie fighting Muhammed Ali (Vox, 2023). The video is a timelapse of the artists' workflow on a computer, showing how it took them more than 17 hours to finish the digital art piece (Vox, 2023). During the video, the artist's voice over, says they have been working as a traditional artist for about two decades before moving over to digital art (Vox, 2023, 00:07:19-00:07:27). The video presents a process of creating art centered around a baseline provided by AI and a lot of manual cover up work. The artist had the AI redo an arm, for example, countless times or had to manually retouch specific elements, claiming that about 50% were done in Stable Diffusion (Vox, 2023). Mei points out how much effort and time went into this creation, and the AI was neither the only tool nor did it provide all the work necessary.

The response is twofold: a) the artist is already familiar with traditional artistic methods and styles, and b) getting 50% of your work done by an AI is still substantial. To start with a),

²³ A painting and image altering program, like Photoshop for iPhone and iPad.

one can argue that the fact that the artist is also capable of working traditionally impacts the situation. In the sense of Arendt, it is clear that in this work process, her pondering is still apparent. The artist reflect on decisions, attempt to convey a specific feeling, and take their time to ponder how to create this desired image best. They have a certain vision in mind and a desire to materialize this vision. On the other hand, 50% of the image is done with AI, meaning AI provided much of the base work and overall video. This would be like someone giving an artist a painting with the task of completing it. One would assign the artist credit but only alongside the other person creating the base work. This leads us back to the idea of human-AI cooperation, with AI providing a substantial amount of the work, without denying that the human artist did display creativity and artistic skill. But this also implies relevant tension between AI artists like the one behind Stelfie and someone just entering a prompt. But Mei is correct in highlighting that there seems to be a space in which traditional artists deploy AI in a more artistic way than just basic prompting. Also the addition of manually changing aspects of the image re-connects to the manual work of Homo faber and implies at least partial pondering.

IV.II.II Suzanne Treister – Machine without agency

Mei's second example is that of the new media artist Suzanne Treister and a panel she gave at the Art Basel 2023 (Art Basel, 2023; Mei, 2024, 52). Under the title of *(Co-)Creating with AI: The Artist's View*, the panel discusses the potential of AI as a means of co-creating with human artists (2023). In the panel, Treister argues that machine intelligence "[...] have no means of manifesting the works themselves in a physical world" (Art Basel, 2023, 00:09:09-00:09:29) while also explaining that she does not perceive them as fellow artists (Art Basel, 2023, 00:30:35-00:30:40; Mei, 2024. 54). Mei takes Treister to emphasize the position of generative AI being dependent on a human. In the context of Mei's primary goal, arguing for authorship rights, this argument fairs well. But, as mentioned before, the central fallacy in the context of this thesis is the assumption of art and creativity in the first place. This means that it can be true that AI cannot be considered an entity with agency, but that does not mean that either art has been created or that the witness creativity, then must be defaulted to the human agent. Speaking with Arendt, not every single action muss falls under either labor, work or action. But rather that normally, creating art falls under work, a frame that remains debatable in the context of AI.

IV.II.III Jason Allen, Space Helmets and the Question of Commissioned Artistry.

Mei's last sample is Jason Ellen. The prompter who won a state fair price with his piece *Théâtre D'opéra*, already discussed in section [III:III:I](#), and the person whose request to copyright his artwork was rejected by the Copyright Office (Mei, 2024, 54). Like the anonymous artist of Stelfie, Mei argues that Allen has put a considerable amount of work into his piece, as well as having to add specific details manually via Photoshop (Mei, 2024, 54-56)²⁴. Mei highlights how much effort Allen put into his work and that the prompts demanded more finetuning than just a few sentences (Mei, 2024, 54-56).

Circling back to Mei's central case, she argues that one must distinguish between examples like that of Allen and ones where "[...] the users provide a brief textual description and accept the model's output as is [...]" (Mei, 2024, 56). To further underscore this argument, Mei brings the example of Caravaggio's work *The Conversion of Paul*, commissioned by Tiberio Cerasi (Mei, 2024, 56). Mei outlines how the contract for Caravaggio only specified which moments and persons the artist should capture while otherwise granting him total liberty (Mei, 2024, 56-58). Mei contrasts that with the 80 hours of work resulting in over 900 iterations of the work that Allen said it needed him to arrive at the desired outcome (Harwell, 2022; Mei, 2024, 57). Furthermore, Mei argues that if Caravaggio's work is rejected, the burden is on the artist to present new iterations rather than the person committing the piece. In contrast, the prompter has the work to redo the prompt (Mei, 2024, 57f.).

It is essential to dissect the different layers of the presented example properly. The first is a sort of equation of time spent on something and the resulting claim that one ought to have the copyright over it. While Mei's claim that one "[...] could never imagine a client having this level of engagement in the painting process after already contracting a commissioned artist." (2024, 57) is a postulation and not a fact, it does seem intuitive, that most relationships between commissioner and artist entail less interaction from the client's side. But the comparison struggles. Of course, the burden falls on the prompter because the prompter is the only one who can be "burdened" by something. If the AI would feel something like a burden, it would be the one who must regain its strength and re-try. On the other hand, the commissioner must also put in the work when they are unsatisfied with the result. Mei argues that a client can just ask for a re-do without giving feedback, but in the same way, a prompter can use the same prompt

²⁴ Mei writes that Allen spent over 80 hours and 900 iterations for his winning piece, while the document by the Copyright Office talks about 634 iterations (Mei, 2024)

again. In both cases, neither the prompter nor the client should be surprised if not much has changed.



Images 11 & 12 by Daniel Aaron Prem via Midjourney (2024)

The images above were created by giving Midjourney the same prompt of “Hannah Arendt's reaction to art generating AI”. While both 2x2 results show similar approaches, they are still two distinct images. While it is true that a human artist will probably create more significant variance without feedback, there will generally be feedback provided by the client if they refuse a first draft.

The difference in workload is explained by looking at the entities. If a client wants a different composition, they talk to a person who understands specific terms and ideas, while the challenge with AI is that it does not inherently understand in the same sense that humans do. The better analogy would be between a prompter and a young adult with little drawing experience. Imagine a client commissioning a young adult and sending back the work of the young artist every time it isn't right. The client must find the right words to convey what they mean, give the young adult time to learn, or simply accept an early version that does not fulfill the desires. No matter how many iterations, it would be odd to claim afterward the client is the artist or did the painting. They invested relevant amounts of time and knowledge, but that does not make them the creator of something.

Similarly, art teachers are not seen as the co-creators of their students' work. Something similar appears to happen with prompters. They must send their work back time over time, because the AI has no inherent understanding of the things it does. Furthermore, in the example of Caravaggio, freedom is most likely granted precisely because it is Caravaggio. His style and skills are what the client wants. Moreover, art-generative AI is constantly improving. This

means that Mei's argument is creating a constant demarcation problem. If the number of steps and fine-tuning are the relevant points, a threshold is implied. But if AI keeps improving, it might take fewer and fewer steps to gain the same result. In the interview, Allen discusses this futuristic vision of a Neural Link projecting an artwork directly onto a screen (Disruption Theory, 2022, 00:23:01-00:24:55). If no further steps need to be taken, is then the same thing as a client? Mei is correct in pointing out that there is a lot of work flowing into Allen's act of prompting. The 624 iterations needed, as the Copyright Office quotes Allen (Wilson et al., 2023, 2), are undoubtedly a lot of work. But the perspective on it being art changes if one considers the following thought experiment.

Before generative AI, the process of looking for an image that one cannot create themselves was often that of a Google Search. If, for example, one made a presentation and needed a specific image for a slide, one would forage through the internet in search of such a picture. In this analogy, the search request is the prompt input. If the search request does not yield the desired result, one adapted and changed the search request to get closer to what one was looking for. Now imagine a giant database with millions of different artworks that are all categorized and organized with tags like "animal", "van Gogh" or "wide-shot". Now, one enters the prompt "A wide shot of a dog, in the style of van Gogh." and an AI searches the database for fitting images. In this example, it seems highly unintuitive to elevate the role of the prompter to that of the creator or author of the piece. Even if the prompter changes the image via Photoshop, for example, one would see it as an addition to an existing piece of work. While the novelty of AI is that it can create images that are not within the database, given that the components are, the allegory shows how the number of iterations or searches do not necessarily correlate to the act of creation and thus questions of ownership. But Mei's core argument is still strong, as her interest is towards authorship.

Given that AI would not create anything without the prompter, the amount of work and time required is a valid factor for declaring authorship legally. Thus, one might need to differentiate between authorship in owning an image and authorship in creating an image. Through Mei's work and the subsequent argument, two relevant points become apparent: a) equating the right over an artwork with a statement regarding who created said artwork is more challenging in the context of AI, and b) AI-generated art opens a tension between time and energy spent on working an image, as well as time and space spent on creating an image. This tension leads back to Arendt and her distinction between labor, work, and action.

V. Acting together, creating connected, working alone.

More complex AI images demand effort, time, and often final adjustments via other tools. Thus, a potentially intuitive way would be to ascribe creating art with AI to labor. But it could only be considered labor if intended to provide for necessities. If a prompter does a piece solely for the act of survival (for example, needing to create something for money to buy food), this might be considered labor, but this applies to a traditionally trained artist as well. Here, it is important to note how labor, work, and action intertwine. An artist can commit labor by creating an artwork solely to survive while still producing a piece of work. In communicating with the client, the artist engages in action as they speak. Both labor and work contain countless actions and can interloop each other. Also, work and labor can co-exist with each other. An artist, for example, can be inspired by commissioned work while still insisting on money to survive. Thus, labor is a category that can potentially apply to anything given the context of doing it to survive.

VI Is Prompting labor, work, or action? (Refusing the client-artist analogy)

Is prompting labor? If one refuses the allegory of prompting and commissioning work, that answer appears to be yes, essentially equating prompting and traditionally creating art. But this leads back to Hui (2023), Suthor (2006), and Mei (2024). This thesis showed that Mei assumed that somewhere in the prompting process, creativity had to be situated because something “creative” emerged. Hui and Zylinska (2020) showed the problem of comparing human creativity with how AI operates. Suthor illustrated how a simple tool like a brush could exert power over the artist and their style, meaning a thing like AI that overtakes countless decisions for the artist likely exerts even more power regarding the outcome. Not only is it likely that it impacts how the prompter thinks and imagines, but going with Hui, the AI also does so with its own form of creativity and way of operating. This leaves little space for pondering in the sense of Arendt, or at the very least, it reduces the amount of pondering. If one tries to bring their vision to life by pondering about what one wants to express, every single detail from color, shape, and composition, must be pondered by the artist. The question of “How can I best convey this emotion/thought/feeling.” is actively or passively answered during the process of creation. If we move from image-generating to text-generating AI, this gets even clearer. When writing an essay, thesis, or book, the authors are constantly confronted with the question of conveying an idea so that others might understand it. Sentence structures, word choice, and tone of writing all need to be chosen by the author. The author must ponder all these problems.

But if one tells ChatGTP to write something, all those choices are made for the prompter. Even if the result is superb craftsmanship, the person did not ponder. The examples brought before often included that a person used other tools to complement the image. But this would be as if an author would take someone else's text and start to make some changes and claim it as their own. Again, not in the sense of ownership but in Arendt's sense of being the person who pondered and created the object in question.

Another aspect appears at the very core of Arendt's assumption about work. Namely, that is the result of *homo faber*, the human that uses their hands (or, in a direct translation, a carpenter). The idea of using one's hand to create something is heavily tied into Arendt's notion of art reifying the world. With images, one must use hands (or feet in various cases of disabled people) to create something. The hand had to learn how to draw, paint, etc. to express the pondering of the artist. This does not happen in the case of prompting. One might argue that with this line of argumentation, no digital art is work, but that is easily refuted. Most digital artists use drawing pads and digital pens, thus still needing to learn with their hands in a way like traditional artists. In the cases of people who use only a keyboard and a mouse, Arendt's pondering still applies. The digital artist must carefully place each pixel, line, or model. But the prompter types. One could claim that the prompter must ponder how to best communicate to the program what the prompter wants, but that would take us back to the allegory of a client and an artist. What is true is that Arendt's idea of work might have a general struggle with digital art, as it changes the idea of art reifying the world. Initially, all digital art is nothing but a file of 0 and 1. Is a digital piece reifying the world while it is stored on a hard drive or only once it emerges and is printed? Or is it that digital art is reifying a digital world as opposed to a material one? This once more circles back to the question of AI being such a paradigm change that specific ideas are no longer applicable.

To summarize, if one rejects the idea of a prompter and AI mirroring a client and an artist, the problem arises that the AI overtakes so many decisions that the act of pondering falls short. The hand no longer needs to "learn" something, and the prompter needs to ponder about very little as the AI shapes their ideas into images. In a previous chapter temp music was presented as an example of how templates can be trapping someone, guiding their ideas alongside an existing road. AI is likely to do something similar, as it takes over the aspect of pondering for the prompter. Referring to Suhtor, the brush influences the possibilities of the artist. And while AI promises a lot of freedom, it exerts much influence over the prompter, not only with the program's limitations but with the images it provides. The best argument for still

placing it in the realm of work is that it fits labor and action even less. Thus, like Hui, maybe one needs to differentiate between human and AI labor, work, and action. But even with adding such a distinction, it seems complicated to maintain that AI is not a second entity but rather “just” a modern brush while arguing that this modern brush makes everything easier without taking away from the pondering that artists usually undertake. In an interview, Allen asks, “Isn’t technology supposed to make things easier?” (Disruption Theory, 2022, 00:17:08-00:17:30) in response to discussing how AI art makes it so that people no longer need to train for years to achieve certain styles. But getting easier has never been an argument for art. It is an economic argument for digital art enables more things since it depends on fewer resources.

VI.II Is Prompting labor, work, or action? (Accepting the client-artist analogy)

In Chapter V this thesis presented extensive arguments as to why one could see a prompter as an entity like a client commissioning an artist to paint for them. Accepting this analogy, how would this impact a prompter’s role in Arendt’s action ontology? Once again, labor applies per context. In this case, the analogy would be between an art director who must work for a living, tasking others with painting images and thus participating in labor to survive. The other example would be someone who commissions an art piece for personal pleasure. In both cases, the artist can also partake in labor, work, or both, depending on the individual context. But beyond potential labor, what does the client partake in? It is not work, as the client does not create enough to satisfy this condition, as we have seen in Chapter V. What the client appears to be primarily doing is partaking in action.

A client wants something and must communicate and interact with the artist. Through words (describing what they want, why they want it, etc.) and through deeds (approaching the artist, paying them, etc.), they act. Action, as Arendt highlights, is occurring between humans and is a way in which we distinguish ourselves from others. Thus, when a client and an artist interact, they both partake in each other’s stories. Arendt also highlights how unpredictable actions can have far-reaching consequences (VA, 311-317). When the client and artist interact, no one knows what consequences this might have. However, when the prompter tasks the machine, it is questionable if the same action occurs. Because the interaction no longer reveals anything between two persons but rather isolates the prompter. While actions can also reveal something to just the person themselves, it is primarily the mode of plurality. It is here that the analogy splits up.

When the client and artist work together, the client either wants to see what the artist would come up with or wants to fulfill their vision. In this context, only the latter is relevant to the analogy. However, as seen in Chapter I, the AI has no inherent understanding of what humans want to portray. There is no intrinsic understanding of the correlation of emotions felt and art displayed. But when an artist hears what a client wants, they can infer ways to display the desired image better. Meaning, through action, the artist can challenge the client's vision. The AI, on the other hand, does not challenge the prompter in what they want because even with machine creativity, the AI cannot truly understand what the prompter desires. To illustrate, the following paragraph outlines the arguments with a personal example of commissioning art.

Every week, I play the tabletop game *Dungeon and Dragons* with friends. Through my previous work, I got to know the comic book artist Albert Mitringer, who also plays with us by now. Initially, I commissioned an artwork with him as a present for my friend who directs the game, and as everyone loved the poster many more followed. The idea of this example was to display a vital plot point of our adventure: our first significant battle, defending a bridge from an army marching towards our hometown. This part of the story was gritty, bloody, and dark, as our heroes descended into bloodshed with the conviction of being righteous in their self-defense. After discussing a few ideas in the group, Mitringer sent us this first draft (Image 13):



Image 13, Image 14 by Albert Mitringer (2024)

His first approach was to display the “fall” of our characters as they lost themselves in the terror and trauma of battle. While we liked the overall approach, we wanted something different.

After discussing the ideas, his next draft was Image 14. Now the idea changed to showing our heroes as the villains, taking the point-of-view of the other army and painting our characters as the monsters that slaughter their way through people. Mitringer understood that we wanted to capture the feeling of prevailing in battle while questioning the self-imposed status of heroes. Him being part of the group eased that understanding, but the process was the same with the images created before his joining. Mitringer worked to make this image, and we both partook in action to reveal ourselves to each other. Comparing the second draft with the following three iterations, one can see how the aspects of the dragon, the key composition, and the two protagonists remained the same, while the character to the right went through different movements. Finally, things like the horned character’s heads being a bit too large were changed for the final rendering.



Image 15,16,17 by Albert Mitringer (2024)

All of us were involved in the action of communicating our desires and visions for the image, yet only Mitringer worked to create the final iteration (Image 18):



Image 18 by Albert Mietringer (2024)

The finale piece resulted from a back-and-forth, resembling the iterations a prompter goes through with an image-generating AI while maintaining action and work between the client and the artist. While the evidence is anecdotal, it provides a helpful insight into a possible form of client-artist relationship. Furthermore, one can see how the clients can be creative without taking ownership of the resulting image. Our group provided creative feedback for Albert, but it was up to him to create the image. Additionally, the example showed how Arendt's activities can overlap. We all partook in action, Albert worked but also labored as he needed compensation for the substantial time expenditure.

Returning to the prompter and AI, one can see how the interaction is a one-way street. The prompter orders the AI to commit an act appearing as work. Once more, this thesis encounters the possibility of nothing to define. Arendt's categories are strictly reserved for human agents and their being in the world. Thus, there is the option that the AI does neither labor, work nor act in the same way that Google does not "labor" when we task it with a search request. As AI is no sentient entity, it does not ponder either. Its creations only reproduce the glimpse of eternity others provided. One could see a paradoxical situation in this

argumentation. One important aspect of work is that it enables purpose and self-satisfaction. If prompting an image leads to self-satisfaction or a feeling of purpose, can one deny this?

The answer to this must lay in a careful distinction of terms. Creating an excellent-looking image can certainly fill one with joy, but one mustn't equate this with the sense of purpose Arendt sees in creating with one's hands, just like getting dopamine does not mean that action causing it was good. More akin to someone finding purpose in their work as art director, a prompter can find purpose in communicating with AI. However using Arendt's terms, it appears that painting an image with little skills and training is more work than creating a masterpiece with AI. This line of argumentation also speaks against the repeated position in the literature of seeing AI as co-creators. With Arendt, true Co-creators commit with actions to the shared work. Like the interactions I shared with Albert, co-creators would commit to a back and forth, question each other, discuss and then work together. But the AI as co-creator cannot do this, as it inherently cannot act, in the framework of Arendt.

V.III Alienation in the digital age.

Hannah Arendt dedicated an entire chapter in *The Human Condition* to how her theory applies to the modern age, marking the discovery of America, the reformation, and the abandonment of a geocentric worldview as starting points for the modern age and the French Revolution as the rise of the modern world (VA, 318). For Arendt, it is here that a process of alienation began, an alienation from the world (VA, 318-325). The conquering of the geographical realm by advancing transportation alienated us from nature, the reformation alienated us from the afterlife, and the cartesian turning point directed our attention inwards (VA, 318-374; 399-408). But more importantly, Arendt traced how the relationship between homo faber, animal laborans, and action shifted in the modern world. For Arendt, homo faber enjoyed an initial privileged position, as the tools it produced enabled the swift technological rise of humanity (VA, 375-388). But while homo faber blossomed under the calculation of purpose, it failed to properly sustain itself under a calculation of luck and satisfaction, leading to what Arendt describes as the victory of the animal laborans (VA, 389-399). It is noteworthy that here Arendt seems to primarily talk about the homo faber in its function as a creator of tools and reification, not the homo faber as an artist, as they are freed of the question of purpose.

The modern world, to Arendt, is a world that praises labor and shifts more and more activities into its realm (VA, 407-412). Work is increasingly accepted only through the lens of labor, meaning that it no longer serves as a means to the end of creating but as another means

to survive (VA, 410). Arendt formulates this as a society of people who are jobholders, functioning amidst processes (VA, 410-413). A sentence that gains new actuality is when Arendt writes:

“Nicht nur, daß die anschauende Kontemplation keine Stelle mehr hat in der Weite spezifisch menschlicher und sinnvoller Erfahrungen, auch das Denken, sofern es im Schlußfolgern besteht, ist zu einer Gehirnfunktion degradiert, welche die elektronischen Rechenmaschinen erheblich besser, schneller und reibungsloser vollziehen als das menschliche Gehirn“ (VA, 410).

At the time of writing, computers needed much longer for much easier tasks. Arendt could not have anticipated that, eventually, computers would go far beyond merely mimicking deductive reasoning. Computer-guided robots can work, labor, and even pretend to act. For Arendt, this reduction of work and action to labor is a gateway to a dire place for humanity, writing:

Es ist durchaus denkbar, daß die Neuzeit, die mit einer so unerhörten und unerhört vielversprechenden Aktivierung aller menschlichen Vermögen und Tätigkeiten begonnen hat, schließlich in der tödlichsten, sterilsten Passivität enden wird, die die Geschichte je gekannt hat.“ (VA, 411),

While one might argue that AI is liberating in the sense of enabling others to create like they never thought they could, Arendt might object to ranking this form of passive creation alongside work. The arguments for AI are ones aligned with labor. It is faster, easier, and better. But those never were the parameters of work but of labor. When watching an image, the time spent was unclear and ultimately didn't matter. When going into action, the aspects of faster, better, and easier do not bear any weight. If action means to reveal oneself and take one's place amidst the world's plurality, doing so faster and better appears as odd approaches. Jason Ellen, the creator of the controversial award-winning AI image, talks about technology being supposed to make things easier and better, while his interview partner argues that AI enables people to create like never before as they skip years of training (Disruption Theory, 2022).

But when we think of art, the act of pondering and how art, in Arendt's words, conveys a glimpse of eternity, it is once more a term of labor to increase efficiency and productivity. In the context of labor, quick onboarding, conveying the needed skills, and being efficient in one's labor are relevant dimensions. As homo faber, the tool creator, is purpose-driven, this

dimension could still be applied. But for homo faber, the artist, and action to enter plurality, these dimensions ought to be meaningless. A term that appears in the context of AI being a liberator is the idea of expressing oneself in the sense of being able to create everyone's visions and expressions. This neatly ties back into Arendt's claim that the animal laborans rose amidst the change from purpose to luck and satisfaction. Arendt goes so far as to separate artists who reify the world from "charlatans" who revel in the entirely unartistic form of self-expression (VA, 481). For Arendt, this does not mean that the modern world has no work and no action but instead that it retreats to the position of a few privileged ones (VA, 412). There is undoubtably a lot of effort that people must put into current AI images if they want to achieve certain images but as AI gets better, this process will take less and less time. If the only argument for AI art is that people still must put in work, it is a dwindling position. And, as this thesis showed, just because something is happening it does not mean it is the same action as creating art.

Being able to create is a long and tedious process. The myth of talent has obscured the relationship between "normal" people and artists. My friend Albert is not a great artist because he has more talent than me but because he has been practicing his craft for nearly two decades. While some people might have a better predisposition than others, all need to learn their craft. In doing so, they constantly need to act and work, and often, there is no purpose beyond what they like to do. People like Bob Ross dedicated their lives to conveying that creating is not a question of talent but one of work. In a time where hobbies are capitalized upon by being degraded to a "side hustle", it is hard not to see some of Arendt's points. While professional artists must labor with their art, Arendt clarifies that this aspect of work is not reserved for anyone. The professional creates, just like the person who does it after a day of labor. For Arendt, creating entails this moment of pondering. Thinking and reflecting about how one wants to reify the word in their specific sense. The working man's thinking is manifested in that which prevails, marking it as something deeply human.

VI. Conclusion

This thesis examines the use of image-generating AI technology from the users' perspective. Working with Arendt's action ontology, this thesis showed how working with AI is a different mode of action than traditionally creating art. Furthermore, the thesis locates creating AI art in the context of a client commissioning work while highlighting how, with Arendt, even this relationship differs from human action. While not providing conclusive answers to questions of creativity and agency, the thesis offers a strong case for perceiving AI as something more than just a digital brush, as it interferes, changes, and overtakes the fundamental aspect of creating art, denoted as thought by Arendt and as pondering by the author of this thesis.

The thesis offers a human-centric perspective on AI art, that ignores the question of art and artist in favor of simply acknowledging that humans create art and how this circumstance is affected by AI. The thesis showed that AI meddles with Arendt's notion of labor, work, and action as it overtakes aspects while being inherently excluded by non-humans. By incorporating ideas of creativity, copying vs. stealing, and the effect of artistic tools, the thesis presents an approach that considers more angles than just the one provided by Arendt. Instead, the thesis shows how one can expand upon Arendt with common aspects of art creation. The thesis also offers perspectives on combining and investigating new ideas like Hui's artificial creativity productively into existing discourses regarding AI art. Here, the thesis highlights the possibility of a general need for a paradigm shift in differentiation between creating art with AI and creating art through AI. There is a difference between using AI to make art like humans and using AI to make art like AI.

Combining concept art, digital art, and often installation art, many artists explore AI through its unique oddities rather than attempting to short-cut traditional art. For example, Mimi Onuhoa, Refik Anadol, and Sougwen Chung all use AI in their art but by focusing on the oddities of it, highlighting the AI as the object of their work or as an explicit co-creator (*MIMI ONUOHA*, n.d.; *Refik Anadol*, n.d.; *Sougwen Chung [憐君] – Works by Sougwen*, n.d.). Rather than tasking the AI with doing something for them, they expose aspects of AI and work with them. While locating their position in Arendt would demand a paper of its own, this heavily implies that even with Arendt, there can be a place and form for AI art. One that still asks for a pondering human, no matter how advanced the AI is.

The thesis thus makes no normative claim regarding AI art but rather notes that making traditional art with AI, might take some away from us. Here the thesis provides a productive base from which to further expend research. One one could incorporate more ideas and thoughts

of Arendt or go in a different direction and investigate other action theories to see how they work with using AI. With Arendt as a base the thesis assumed an explicitly human centric position, that contains essentialist and humanist traits. Thus another line of exploration could be found in taking the action-ontology of Arendt and investigate it in trans,- and posthumanist theories. Furthermore, the thesis provides arguments to inspect human-art relationship not by asking what art is but by working with the fact that art is a consistent aspect of humanity. This approach also makes it easier to celebrate the successes of AI, while remaining skeptical as to which realms AI should overtake.

At the end of *The Human Condition*, Arendt turns to the phenomenon of thinking. Framed as something that took the least damage from the modern age, thinking remains as the more active of all the activities (in German, Arendt writes it as das “tätigste” (VA, 414). While Arendt herself does not bring up the link again, it is noticeable how her term of “thinking” (in German: “denken”) is the same as her choice for describing the role of the artwork (VA; 201-212 & 414-415). Arendt ends her book with a quote of Marcus Porcius Cato: „Niemals ist man tätiger, als wenn man dem äußeren Anschein nach nichts tut, niemals ist man weniger allein, als wenn man in der Einsamkeit mit sich allein ist.“ (VA, 415). “Never is he more active than when he does nothing, never is he less alone than when he is by himself.” (HC, 325).

Maybe it is here that the ultimate problem of AI art in the sense of Arendt reveals itself. When creating with AI, we are not truly alone with ourselves. Still, we are also not among others, creating a new form of digital alienation that wanders outside of the human condition. The traditional artist must truly think to work, while the prompter is interrupted by the AI, a co-creator who cannot act or ponder.

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VII.II Image Sources:

Image 1: Derived from Discord via Daniel Aaron Prem on 28.09.2024

Image 2: Derived from:

MNIST - Machine Learning Datasets. (n.d.). Retrieved 5 October 2024, from <https://datasets.activeloop.ai/docs/ml/datasets/mnist/>

The MNIST dataset and its images and data, is copyrighted by Yann LeCun and Corinna Cortes but is made freely available under the GNU General Public License v3.0:

MNIST-Dataset/LICENSE at master · sharmaroshan/MNIST-Dataset. (n.d.). GitHub. Retrieved 29 October 2024, from <https://github.com/sharmaroshan/MNIST-Dataset/blob/master/LICENSE>

Image 3: Derived from:

Marcal, P. V. (2016). *Fig. 2. Neural network with hidden layer for MNIST data*. ResearchGate. Retrieved 16 July 2024, from https://www.researchgate.net/figure/Neural-network-with-hidden-layer-for-MNIST-data_fig2_308120458

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Image 4 & 5: Derived from:

Prompt engineering for beginners: Here's how it works! | *tolingo*. (n.d.). Retrieved 6 August 2024, from <https://www.tolingo.com/en/prompt-engineering>

As of now AI artworks cannot be copyrighted as they are legally not considered the result of human work. As of the 29th of October 2024, this applies to Austria as well.

Image 6 & 7: Derived from Midjourney via Daniel Aaron Prem on 22.09.2024

Image 8: Derived from:

Gatys, L. A., Ecker, A. S., & Bethge, M. (2015). *A Neural Algorithm of Artistic Style* (arXiv:1508.06576). arXiv. <http://arxiv.org/abs/1508.06576>

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Image 9: Derived from:

Roose, K. (2022, September 2). An A.I.-Generated Picture Won an Art Prize. Artists Aren't Happy. *The New York Times*. <https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html>

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Image 10: Derived from:

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The Harvard Art Museum states that it encourages the use of images of their gallery for educational purposes.

Image 11 & 12: Derived via Midjourney by Daniel Aaron Prem on 01.09.2024

Image 13-18: Derived from Albert Mitringer, with the permission of the artist.

VII.III Video Sources:

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Abstracts

English Abstract:

Under the intuition that creating art with the image-generating AI Midjourney is impacting the act of art creation from a human side, this thesis used Hannah Arendt's action-ontology of labour, work and action to better understand the process of using AI. The paper shows how traditionally art falls under work for Arendt, whereas AI art fails to fulfil the same role as it heavily changes the aspect of what Arendt calls thought, which is essential for creating art in the context of Arendt. The thesis concludes that using AI to create art has more in common with a client commissioning art from an artist.

German Abstract:

Mit der Intuition, dass das Benützen der Bild-generierungs KI Midjourney den Prozess des Kunst erschaffen beeinflusst, erörtert diese Arbeit wie sich das erschaffen von Kunst mit KI von traditionellem Kunst erschaffen im Kontext von Hannah Arendt's Vita Activa unterscheidet. Die Arbeit zeigt auf, dass während Kunst erschaffen für Arendt unter das Herstellen fällt, das Arbeiten mit KI hier nicht mehr reinpasst, da der Prozess des sinnenden Denkens nicht mehr zur Gänze gegeben ist. Die Arbeit konkludiert, dass das Benützen von KI viel gemeinsam hat mit einem Klienten der Kunst bei jemanden in Auftrag gibt.