Poking the Beast:

Prompted Imaginaries of Generative AI

Ada Popowicz

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Thesis Supervisor: Dr Claudio Celis Bueno

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Abstract

The introduction of image-generating large language models in early 2022 has ignited intense discussions in both artistic and public domains. The shocking simplicity of inputting a few words of description into an AI model and receiving advanced, convincingly human-like output has awakened both excitement and fear. Prompt engineering, a central method of communicating with machines and exploring their inner workings has become a domain of particular interest for many AI enthusiasts. In order to address the research question: "What kinds of imaginaries about generative AI emerge in the online communities discussing prompt engineering?" this study investigates prompting communities of Midjourney software. The discursive landscapes surrounding these communities are mapped across two distinct stages. Firstly, I examine Midjourney's Twitter to observe what kinds of imaginaries were expressed by the users before the technology was released for public use. Secondly, I explore Midjourney's Discord server where users share keywords and phrases believed to enhance the quality of the generated outputs. Building upon the existing scholarship of imaginaries, this thesis argues that the advent of generative AI requires a new lens for understanding its imaginaries. It proposes the concept of "prompted imaginaries" as a framework that acknowledges the unique circumstances in which imaginaries of generative AI are formed. Drawing upon the theoretical frameworks of the Lovelace effect and Promethean anxiety this thesis explores how the arrival of generative AI calls for a renegotiation of the notions of "creativity" and "intelligence" as dynamic and relational phenomena. Moreover, drawing upon concepts of algorithmic sublime and enchanted determinism, this study examines the users' sense-making practices and the conceptual positioning of generative AI. Specifically, it scrutinizes the prevailing tendencies towards anthropomorphization, comparisons to divine entities, and the utilization of magical discourses in discussions surrounding AI.

Keywords

Generative AI, Prompt Engineering, Algorithmic Imaginaries, Prompted Imaginaries, Creativity, Intelligence, Midjourney, Lovelace Effect, Promethean Anxiety, Enchanted Determinism, Algorithmic Sublime

Ethics Review Note

The research methodology used in this thesis has gained the approval of the Ethics Committee. The data collection consists of two main sections which demanded an ethical review as they rely on publicly shared input from human subjects. In the first section, I have gathered the responses from Twitter users to a Midjourney tweet from the 21st of March 2023, in which the company asked its audience to comment with prompts they would like to see the AI model respond to. The second section of the methodology incorporated reading through two connected threads from Midjourney's Discord: *#💬Talk-💥WOP! (Words Of Power)* and *💡PROMPT BUSTER - Share your secret 1 word or token phrase that drastically changes results!* and collecting all the comments from users who shared the keywords or phrases that they found particularly useful in obtaining better results from the model. In this part of the data collection, I focused both on the specific phrases that the prompters shared and the general way in which they discussed the technology. In order to protect the privacy of Twitter and Discord users, the data collected from both sources do not incorporate the user names or direct links to the discussions.

Introduction

On August 26th, 2022, on one of Midjourney's Discord threads, Jason Allen (@Sincarnate) proudly announced that his artwork *Theatre d'Opera Spatial*, which he has generated using the company's text-to-image software, has won the first prize in the Colorado State Fair's Fine Arts Competition (Gault 2022). His announcement has sparked a lively debate, both on Discord and Twitter. People were not sure what to make of Allen's victory. Some feared that humanity had arrived at the end of artistry (Kuta 2022), while fellow AI enthusiasts sent their sincere congratulations (Discord user 2022). Others were outraged (Roose 2022) and demanded that Allen return the prize and apologise to the other contestants (Harwell 2022). The dynamic conversation has quickly risen to prominence and its sudden virality caused its themes to be soon picked up by the tech columnists of major public news outlets such as The New York Times (Roose 2022), The Washington Post (Harwell 2022) and MIT Technology Review (Baidu 2022). Among all the discussions about the future of art, fairness of the competition, considerations of whether a machine can be creative, and multiple interviews with Allen himself, one aspect of the artwork was never fully revealed—the textual prompt that the author has used to generate the winning artwork. According to him, "if there's one thing you can take ownership of, it's your prompt" (Harwell 2022).

Ever since the public release of the image-generating large language models in the spring of 2022, the Internet has been flooded with grids of generated images annotated with a line or two of the original query. The first grid templates of three-by-three images came from DALL·E Mini (now Craiyon), which quickly became the Internet's "new favourite meme machine" (Knight 2022). Prompting the model and receiving wonderfully awful results provided a novel form of instant gratification in online entertainment. However, the advent of DALL·E 2, Midjourney and other advanced generative models transformed prompting from an easy and fun method of instant meme production into a serious skill to be mastered by professionals (Heaven 2022a). The generative process seemed similarly simple. All the user had to do was to type in a prompt (a few words of description of what they would like the machine to generate) and within less than a minute they received the results. The distinguishing feature introduced by the new generation of models was the remarkable quality of the outputs. The images were sharp, aesthetically pleasing and convincingly emulated the outputs of human creators. To push the quality of results even further, the process of crafting a prompt became gradually more complex. Suddenly, the prompts behind "the most detailed, stylized images [could] run to several hundred words" (Heaven 2022a). The term "prompt engineering" was coined to champion the efforts of those who wanted to stimulate the latent space of the AI to its limits in generating exactly what the prompter

wanted to see. And even though, as can be seen on the Midjourney's Discord channel, the majority of the curious users still stick to simple prompts consisting of just a few words in plain English, others started exploring different modifiers, "quality boosters" (Oppenlaender 2022a, 8) and alternative specialised commands to fully wield the new generative power.

Writing prompts is the latest development in the way in which humans communicate with computers. Because of the novelty of the phenomenon, the exact definition of what a prompt is may still be shifting, but in the simplest terms, a prompt is an input given to an AI model that is supposed to stimulate it ("prompt it") to produce an output. Traditionally, such an input would be textual, but as the modalities of the models' outputs expand, so do the inputs—which means that a prompt can be in the form of a text, an image, a piece of music, code and many others. Kemeny sees artistically-oriented prompt engineering as a new form of an ancient Greek ekphrasis, "the written description of a work of art produced as a rhetorical or literary exercise." (Kemeny 2022). According to him, prompting is an embodiment of the romanticised idea of "painting with words" which crossed the barrier of a metaphor and became practical. According to Kemeny's observation, the creator's "linguistic and narrative capabilities result in a graphical representation of an emotion, idea, or thought, in the same way, poets and writers paint images in your mind" (Kemeny 2022).

Every generative interaction with a large language model starts with the user providing a machine with a prompt. For the text-to-image models that prompt is a description of what the user would like the machine to output in terms of contents, style, colours, dimensions, shapes etc. The prompt is an expression of human initiative and the original idea preceding the responsive work of the machine. As the main communication channel between humans and machines, prompting methods can be explored as a rich field for negotiation between statistical and embodied intelligence.

With the progress of technological development, the methods of communicating with the non-human interlocutor are becoming more approachable to people with less specialised technical knowledge. Prompting in natural language is a perfect example of such a tendency. As observed by Andrej Karpathy, one of OpenAI's co-founders, "The hottest new programming language is English" (Karpathy 2023). Fluency in traditional programming languages is no longer a requirement for interacting with complex machine-learning systems. One of the main technological breakthroughs brought about by the new generative software is the sudden extensive accessibility of the new-level human-to-computer interaction to a common user (Oppenlaender 2022b, 2). Such a severe reduction in the barrier to entry to a seemingly "magical" technology, mixed with visually or textually enticing results and corporate and media hype, generates tremendous interest in generative AI. The formation of a relatively large group of

people interested in obtaining more satisfying results from the AI models created another interesting aspect of prompt engineering: its very social setting. Every major text-to-image model (Midjourney, DALL·E and Stable Diffusion) has its own Reddit and Discord servers, and the conversation spills into many other social media outlets. Twitter threads, Discord channels, Reddit discussions and even Instagram comment sections, began to exhibit remarkable outcomes obtained with both text-based and image-based modalities. Significantly, these platforms also fostered the sharing of prompting methods used by the creators in order to accomplish these outcomes. Currently, individual users engage in a collective discovery of possibilities presented by the technology and teach each other how to extract the best results from the co-creative AI agents (Daniele and Song 2019, 155). As displayed in the Discord discussions of popular image generators, there is a vivid interest in improving one's prompting skills and a lively spirit of experimentation permeates the knowledge exchange (Oppenlaender 2022b, 7). Especially in the case of artistically-oriented AI models such as Midjourney, what could be observed, even after the most heated hype moment surrounding the release of the software was gone, was vivid public discussion about methods for prompt improvements and a surprising open-source attitude of users not only sharing their prompts but also creating guides and excel sheets freely available to anyone who wanted to learn. Less than a year later, prompting became a well-paid job (Harwell 2023) and prompt engineering is quickly becoming a new domain of specialisation that goes way beyond the initial playful and innocent interactions with an image generator.

Ultimately, prompting engineering is a largely social phenomenon. The users' prompting methods are grounded in how they *think* the machine understands its datasets and how it goes about transforming them into novel creations. The actual nature of the models and their latent spaces remains alien even to the engineers who created them (Harwell 2023). As a very novel phenomenon, prompt engineering is a largely understudied field. It is the online communities, not academia, where the exploration of prompting thrives (Oppenlaender 2022b, 2). In order to understand prompting, one needs to study these communities, the ways they talk about the prompts, their relationships to the concepts of "intelligence" and "creativity", what they compare prompting to and how they imagine the inner workings of the generative AI.

Crucially (and unsurprisingly), according to the prompt engineers, prompting is a skill. It requires wielding the language in creative and often unexpected ways, using it to catch a certain ineffability, turn affect into an utterance. There is poetry to it, there is creativity and there is technical knowledge. Prompting demands an awareness of the training data, as many of the idiosyncrasies we find in prompting are effects of how training data are labelled. The politics of such categorisation have been explored before (Crawford and Paglen 2019), but the generative nature of prompting problematizes the

connection between the model, its dataset and its prompted output on a new level. Understanding the complex relationships between the textual and visual modalities, which are the primary focus of this thesis, is a particularly important aspect of prompting. Words are linear, logical, and abstract, and images are non-linear, intuitive, and concrete. Words require a logical structure and grammar to convey meaning, while images rely on visual cues and associations to evoke emotions and communicate ideas. A prompter needs to operate on a balanced plane of technical algorithmic understanding, linguistic skill and visual literacy. Such practices elicit contemplation and discussion about not only the nature of algorithms but more importantly users' perceptions of these technologies and the resulting formation of different imaginaries of them.

Generative AI is changing the way culture is being produced (Chayka 2023b) and with the dizzying tempo of software innovation, a growing number of modalities, and expanding user base, the trend is likely to continue. The technology seems to be creating a paradigm shift not only in cultural production but also in what we, humans, consider to be of artistic value. Our relationship to what was previously thought to be the pinnacle of uniquely human traits—creativity and intelligence—is being actively renegotiated. With such an impact, the phenomenon of creative AI calls for an urgent investigation of its technological, socio-political and philosophical consequences.

The aim of this work is to map out the discursive landscapes which have emerged around the visual AI models. Through engaging with the discussions of prompting communities, I want to examine how, through such collaborative action, the users of generative text-to-image models shape the imaginaries of what AI is. In my investigation, I plan to explore the potential of prompt engineering and large language models in facilitating new forms of collaboration, co-creation and communication between humans and machines and focus on how humans are using their unique embodied understanding of the natural language of prompt engineering in order to stimulate the language model to not only bend it towards their creative ends but also to make sense of the new technology.

The research question that this research aims to answer is: "What kinds of imaginaries about generative AI emerge in the online communities discussing prompt engineering?"

In order to address the research question, in my methodology I will focus on the text-to-image modality of the image-generating large language models, paying particular attention to the case study of the communities working with the Midjourney software. Midjourney is a software that best lends itself to the type of analysis I am embarking on. All of Midjourney's generative actions (for the regular, non-paying users) are happening on its public Discord channel. As soon as users access its

“open-by-default” (Midjourney, n.d.-b) space, they are bombarded with a constant flow of prompts from thousands of users generating hundreds of images every few minutes. It allows any newcomer to familiarise themselves with what other users are asking of the model and slowly start working on their own prompts. By focusing on the discussions of the users interested in prompt engineering within the Discord platform, which is regularly used to access the AI model, and comparing them to the earlier, pre-release expressions in the Twitter environment, I will gain extensive insight into the types of imaginaries that have been formulated through the practices of prompt engineering, which will allow me to answer the research question in a detailed and comprehensive manner.

In order to sketch out and investigate the complex network of prompt engineering, generative software, machine intelligence and creativity, I will build upon the work of scholars who explored the topics of relevant similarity. In the following chapter, I will introduce a set of concepts from an intersection of science and technology studies (STS), new media and philosophical scholarship, which will provide a theoretical framework for the further analysis of the collected data. The structure of this section will be tripartite. Firstly, I will present an overview of the gradual development and expansion of the concept of the imaginary, from Jasanoff and Kim's "sociotechnical imaginary" (2009) and Bucher's "algorithmic imaginary" (2017) to Bishop's "algorithmic gossip" (2019), and Schellewald's "stories about algorithms" (2022). I will argue that contemporary algorithmic technologies require an analysis under a new lens and recognition of a new type of imaginary production that emerged alongside them. By introducing the concept of “prompted imaginaries”, I will propose a new framework that takes into consideration the shifts in use, function, size and complexity that constitute the new circumstances in which the imaginaries of the generative AI emerge.

Secondly, I will explore how, in the era of generative models, the notions of “creativity” and “intelligence” have to be reconsidered in relation to their historically exclusive association with human capabilities. I will present the ways in which different scholars have grappled with defining both terms and how such definitions have been challenged by the development of AI technologies. Drawing upon the concepts of the Lovelace effect (Natale and Henrickson 2022) and Promethean anxiety (Bajohr 2022), this study will advocate for an understanding of creativity and intelligence as inherently dynamic, subjective and relational concepts.

Lastly, this study will contextualize the discourses surrounding artificial intelligence within a broader scholarly framework that encompasses metaphorical, mythical, magical, and even religious perspectives on engaging with this technology. I will draw upon the theories of “disenchantment” (Weber 1964) and the corresponding “myth of disenchantment” (Josephson-Storm 2017), as well as “algorithmic sublime”

(Ames 2018) and “enchanted determinism” (Campolo and Crawford 2020) in order to present the significance of the ways in which a society talks about its technologies and consider the kinds of potential consequences arising from such rhetoric.

My analysis will be conducted in two stages. Firstly, I will look at the early, pre-public release excitement about the relationship between textual prompts and visual outputs, as seen on Midjourney’s Twitter. I will look at what kinds of imaginaries the users have expressed before wide public access to the actual Midjourney software. Secondly, I will conduct an extensive investigation of the 💡*PROMPT BUSTER - Share your secret 1 word or token phrase that drastically changes results!* thread and its continuation *#💬Talk-💥WOP! (Words Of Power)* on Midjourney’s Discord. Through this analysis, not only will the study document the types of prompt engineering advice exchanged among users, but it will also reveal the broader imaginaries evoked in discussions of AI and its capabilities. By undertaking a comprehensive mapping of these imaginaries, this stage of the analysis will be imperative in accomplishing the research goal of answering the research question.

The aim of this thesis is not to examine whether AI is or is not creative. Such a question presents a level of difficulty, perhaps even impossibility, that is beyond the scope of this work and, as argued by a variety of scholars (Zylinska 2020, Pasquinelli and Joler 2021, Boden 2004), it is not the question that the analysis of creative AI should be focusing on. Following the framework of the Lovelace effect, which puts an emphasis on the relative and subjective nature of assigning a label of “creativity”, and considering the observations made by Bucher in her recognition of the role of the user in the formation of the algorithmic imaginaries, the central issue tackled in this study is understanding how algorithmic technologies, and especially their creative capacities, are perceived by the human agents interacting with them.

What I would like to achieve is to shift the focus from the models themselves and towards how the community using these tools responds to them and how they discuss the visual results obtained through human-to-computer interaction by means of prompting. As a result, I want to present a theoretically-contextualised discursive landscape of relations between AI technologies and their human users, as shaped by the public, open-source negotiation between statistical and embodied intelligence in an environment of collaborative exploration and sense-making.

Theoretical Framework

This chapter employs a three-part approach to investigate the theoretical foundations of the intersection between generative AI and human conceptions of its capacities. The first section explores different types of imaginaries, including Jasanoff and Kim's notion of a "sociotechnical imaginary" (2009), Bucher's "algorithmic imaginary" (2017), Bishop's "algorithmic gossip" (2019), and Schellewald's "stories about algorithms" (2022). This section highlights the significance of studying not only what machines do, but, perhaps more importantly, what users' perceptions of machine behaviour are and how these perceptions influence the human-computer interaction. Additionally, after observing the limitations of the existing frameworks for studying imaginaries in the context of generative technologies, which differ significantly from the recommendation algorithms, I recognize the need for introducing a new type of imaginaries, which I refer to as "prompted imaginaries".

The second section examines the dynamics of the concepts of "intelligence" and "creativity" and their renegotiation with the advent of new technologies. In particular, the focus is on understanding why, when analysing AI art, it is essential to concentrate on how human agents perceive and assign the label of "creativity" to non-human agents, rather than interrogating whether the machine is objectively creative. The Lovelace effect, introduced by Natale and Henrickson (2022), and the phenomenon of Promethean anxiety (Bajohr 2022) are utilised to explore the relationship between human perception and machines' creative capacities.

The final section of this chapter undertakes an analysis of the magical and religious discourses that underpin both popular and expert discussions regarding artificial intelligence, and the manner in which rhetorical strategies shape societal reactions to the technology and influence its future trajectories. This analysis is situated within the frameworks of Ames's "algorithmic sublime" (2018) and Crawford and Campolo's "enchanted determinism" (2020), which direct the focus of the examination towards the ways in which metaphorical and mythical frameworks interact with the material realities of AI.

Observing Imaginaries

Sociotechnical Imaginary

Jasanoff and Kim in their analysis of Korea's and the USA's national narratives around nuclear technologies defined sociotechnical imaginaries as "collectively imagined forms of social life and social

order reflected in the design and fulfilment of nation-specific scientific and/or technological projects." (Jasanoff and Kim 2009, 122). They noticed that the rhetoric dictated by the state governs the society's ability to imagine the future of living with a specific technology and observed that "the capacity to imagine futures is a crucial constitutive element in social and political life" (Jasanoff and Kim 2009, 122). Jasanoff and Kim described the distinctive position of the imaginaries in the following way: "imaginaries operate for us in the understudied regions between imagination and action, between discourse and decision" (Jasanoff and Kim 2009, 123).

Even though Jasanoff and Kim are some of the first scholars to consider an imaginary of a technology in a social context, their definition comes short when it comes to analysing socially emerging discussions of prompt engineering. In Jasanoff and Kim's conceptualisation, an imaginary is something controlled in a top-down manner—it is the state or other agent in power that, through policy regulation and innovation campaigns, prescribes the futures it believes "ought to be attained" (Jasanoff and Kim 2009, 120). It is the state actors that possess "the (legitimate) means to sketch future societal pathways" (Bareis and Katzenbach 2022, 859). A sociotechnical imaginary becomes a tool for creating a social order (Jasanoff and Kim 2009, 122) and even though it recognizes the power of an imaginary to shape the future, it ignores or underestimates the personal experiences of users of the technologies and the bottom-up construction of such imaginaries.

Algorithmic Imaginary, Algorithmic Gossip and Stories about Algorithms

With a more widespread presence of discussions about algorithms, a few years after the conceptualisation of a sociotechnical imaginary, Taina Bucher introduced her concept of an "algorithmic imaginary" (2017), soon to be followed by Bishop's "algorithmic gossip" (2019), and Schellewald's "stories about algorithms" (2022). All of these frameworks have approached the construction of an imaginary from an ascending standpoint, focusing on user-level experiences. However, despite that key similarity, there are important differences in the ways that each of the scholars has approached the topic.

Algorithmic technologies are not a recent arrival. Long before the current hot topic of generative AI, the recommendation algorithms of popular social media platforms were a core focus for many STS and new media scholars. Bucher focused her analysis on the personal experience of users becoming aware of their Facebook algorithms and their reactions to how the algorithm seemed to try to understand who they are to give them more accurate recommendations. An algorithmic imaginary explores the ways in which "people imagine, perceive and experience algorithms and what these imaginations make possible"

(Bucher 2017, 31). It does not "merely describe the mental models that people construct about algorithms but also the productive and affective power that these imaginings have" (Bucher 2017, 41). Bucher turned Jasanoff's and Kim's focus around and recognized that to understand the power of algorithms, we need to "understand how users encounter and make sense of algorithms, and how these experiences, in turn, not only shape the expectations users have towards computational systems but also help shape the algorithms themselves" (Bucher 2017, 33).

While Bucher's algorithmic imaginaries focused on individual, personal and affective experiences of the Facebook algorithms, Bishop, coining her concept of an "algorithmic gossip", focused on the collaborative ways in which professional users (creators) collectively try to make sense of the algorithms that they encounter. Her analysis took on the Youtube beauty creators as a case study and defined algorithmic gossip as "communally and socially informed theories and strategies about recommender algorithms, shared and implemented to engender financial consistency and visibility on algorithmically structured social media platforms" (Bishop 2019, 1). In comparison to Bucher's work, Bishop considered the algorithmic gossip as primarily used to "game" the algorithm and gain maximum possible algorithmic visibility—the creators in her study tried to optimise their content so that its chances of going viral are at their highest, in accordance with the rumoured preferences of the Youtube algorithm. She found that creators discuss their changing levels of visibility on messaging groups in order to check "if others are experiencing the same events or issues" (Bishop 2019, 6). Algorithmic gossip becomes a format of a "background check" on potential beliefs (Bishop 2019, 6) and allows the users to "diagnose experiences as either personal or platform-wide" (Bishop 2019, 6).

Finally, Schellewald's concept of "stories about algorithms" expands the line of studying bottom-up' ideas about algorithmic technologies towards collective sense-making practices of regular users. He builds upon Bucher's and Bishop's theories but calls for "studying this dynamic of algorithmic imaginaries being constituted both on a social and personal level" (Schellewald 2022, 3). The author argues for a "methodological duality when investigating algorithmic imaginaries" (Schellewald 2022, 3) and offers a framework that combines the research of personal experiences of individual users with an ethnographic analysis of reactions of a wider public—effectively merging the frameworks of Bucher and Bishop into one holistic whole.

Prompted Imaginaries

All of the mentioned frameworks, while focusing on algorithms, tend to focus mostly on their social media recommendation algorithm variety and study them in different levels of social embeddedness.

They all notice that the imaginaries are "productive" in the sense that they are not "mere mental representations of algorithms" (Schellewald 2022, 2), but social phenomena that have a huge capacity of influencing the future interactions and uses of the algorithms. They depart from the concept of the sociotechnical imaginary by realising that as much as the top actors try to control the social perception and use of the technology, it is the user's final experience of it that matters and holds the capacity to undermine the original intentions of designers and producers (Natale and Henrickson 2022, 13).

Even though the existing frameworks for analysing algorithmic imaginaries bring forth a diverse array of analytic approaches, none of them seems to be perfectly suited for analysing the imaginaries of generative AI. Most of the scholars studying imaginaries focus on the recommendation algorithms—Bucher analyzed users' reactions to Facebook recommendation algorithms and Bishop turned to Youtube creators' observations of its algorithm. However, generative AI, when compared to a recommender system, functions in different circumstances, which can be summed up in two key shifts.

The first key difference between recommendation algorithms tackled by previous imaginaries' frameworks and generative AI is the shift in use and function. In the recommender systems data is passively extracted from the users. The generative AI, however, heavily relies on an active user (the prompter) to give it input. The act of prompting is actively encouraged through interfaces designed for this specific use case. In Bucher's analysis, the imaginary of the technology was constructed through the users' experience of the algorithmic output, a passive observation rather than active experimentation. In Bishop's case study, the users were slightly more active in their attempt to "game" the algorithm towards their goals. The Youtube creators' approach relied on accepted imaginaries of how the algorithms function, based on their personal or collective experiences—the algorithmic gossip became a "strategic use of resources to piece together information in the absence of official platform communication" (Bishop 2019, 8). The methods of "gaming" the algorithm can essentially be seen as forms of "hacking"—the users appropriated the affordances of a technology that was not meant for user intervention. "Hacking" here is prompting the algorithm through an interface not designed for prompting. However, in the generative AI environment, prompting is not only encouraged, but it is a crucial point of interaction with the model. The shift in the design and purpose of the algorithmic interface has resulted in a transition from Bucher's user and Bishop's "hacker" towards the emergence of a new, central figure: the prompter—a position unique to the generative AI.

The second important shift differentiating recommender and generative algorithms is the difference in scale and complexity. Both recommendation and generative varieties are based on machine learning. They have latent spaces, the abstract multi-dimensional vector spaces holding the learned distributions

of ingested data (Antoniadis 2022), that present a level of complexity that is difficult to grasp even for the very engineers who constructed it (Mordvintsev et al. 2015). The crucial difference lies in how the neural network has been trained and what kinds of datasets it was trained on. The recommendation algorithms are usually an example of supervised learning. In this approach, the neural network ingests a labelled dataset. As the method relies on human intervention in the form of performing the labour of data labelling (Pasquinelli and Joler 2021, 1266), there is a limit to how big the dataset can become. Generative AI, on the other hand, is based on unsupervised machine learning, which relies on unlabelled data (IBM Technology 2023). Here, the algorithm is tasked with recognizing (or discovering) patterns in the dataset without attached labels (De Vries 2020, 2112). In order to have enough material to "learn" from, the requirement for data is enormous, much larger than the requirement of standard supervised systems. The distinction is not only quantitative—in the unsupervised environment there is also less human intervention, as the labour necessary to check the correctness of all the ingested data exceeds the capabilities of technology providers. The operational mechanisms of machine learning, even in earlier iterations, were characterized by a lack of transparency. However, with the new scale and complexity, the issue has become even more pronounced: even the most advanced engineers lack explanations about why certain things happen in the way they do (Harwell 2023). The passage from supervised to unsupervised learning introduces a reality in which prompting becomes the way of expressing and accessing the imaginary. The new realities brought about by the generative AI point to the particular role and incredible importance that the prompter (explorer of the AI model) plays in creating an understanding of the highly opaque technology.

Generative AI is an example of a technology that can be metaphorically conceptualized using Pasquale's notion of a "black box", characterized by its mysterious inner workings where only the inputs and outputs are observable—however, the elusive process by which inputs are transformed into outputs remains unknown (Pasquale 2015, 3). If generative AI is a black box and all one can see is the input and output, then it is through repetitively "poking" the latent space with prompts and putting in the creative effort to obtain certain results, that the user has a chance of getting a better vision of what kinds of understandings the machine holds.

The comprehension of the technology is not merely derived from passively observing the outputs, but rather from making connections between the provided input and the model's response. The repeated efforts in prompting practices construct an imaginary which holds a productive value not only for the common users but also for industry experts.

The imaginaries of generative technologies retain the key elements of the existing frameworks of imaginaries: their focus is on user perceptions and recognizing that the technology shapes the imaginaries, which in turn shape the technology in a mutual relationship. Generative AI introduced a new figure of the prompter and with it brought about the imaginaries of a specific type of user: the algorithmic explorer equipped with a valuable skill set recognized on the job market (Harwell 2023). The practice and skill of prompting come from the nature of the technology, as it necessitates a new type of use and hence develops a specific skill set. At the same time, the development of these skills and resulting imaginaries of machine's capacities, influence the decisions made about the technology, its future development and the possible regulation.

Despite all these similarities, the arrival of generative AI, with all its contrasts to the recommendation systems, calls for introducing a new type of an imaginary, which goes beyond the existing frameworks. I propose the concept of "prompted imaginaries" which acknowledges the shifts in function, usage, scale and complexity introduced by the generative AI and recognizes prompting as a new way of accessing the imaginaries of the new technology. Considering the imaginaries of generative AI under this new lens allows for a more comprehensive analysis and understanding of the foundations and processes of how the users arrive at a particular understanding of the technology.

Creativity and Intelligence

Historically, when it came to defining precisely what "intelligence" or "creativity" is, both terms have proven to be rather slippery. Traditionally, intelligence and creativity were considered to be the "defining characteristics of our species" (Daniele and Song 2019, 159) and the key traits that would draw a clear distinction between us and the non-human. The conversations about AI inherit a lot of their rhetoric from the "long-standing motifs of human-like machines in mythical storytelling and science fiction" (Bareis and Katzenbach 2022, 857) and lead to myths such as non-human systems being considered analogous to a human mind and displaying a capacity to create " humanlike intelligence [...] from scratch" (Crawford 2021, 4). However, even before the widespread presence of AI in our society, psychologists, scientists, writers and artists struggled to define in precise terms what "intelligence" or "creativity" really mean. As observed by Legg and Hutter "Despite a long history of research and debate, there is still no standard definition of intelligence" (2007, 2). After presenting more than seventy definitions of intelligence from multiple scholarly fields, the authors come to the conclusion that the concept can be "approximately described, but cannot be fully defined" (Legg and Hutter 2007, 2). This conclusion seems to be shared by Zylinska when she points to a generally unstable position of many

"pronouncements about AI" (Zylińska 2020, 19) and recognizes the concept of intelligence as one which, despite being so foundational to the field, manages to continuously escape a strict definition. Zylinska criticizes how, faced with the struggles surrounding defining the term, it is either applied in an uncritical way or conveniently adjusted to a particular circumstance (Zylińska 2020, 19).

In response to the ongoing discussions around what it means to be intelligent or creative in the era of widespread AI, a growing body of posthumanist scholarship (Bridle 2022, Godfrey-Smith 2016) started exploring scientific and technological developments of finding intelligence and creativity in the non-human—often pointing to humanity's failure in passing the "intelligence recognition test" (Zylinska 2020, 34).

After analysing all of the definitions and combining their shared elements, Legg and Hutter arrive at an informal definition of intelligence as a measure of "an agent's ability to achieve goals in a wide range of environments" (Legg and Hutter 2007, 9)—a definition as wide as the scholarship attached to it. Interestingly, scholars such as Crawford or Gebru point to some dangers that come with ascribing "intelligence" to a non-human entity. Gebru warns that claiming that large language models have "human-competitive intelligence" is one of the biggest harms caused by the technological rhetoric (Merchant 2023). Crawford, on the other hand, notices that the very concept of intelligence "has done inordinate harm over centuries and has been used to justify relations of domination from slavery to eugenics" (Crawford 2021, 5). In a similar vein, Pasquinelli and Joler argue for seeing AI as just "an instrument of knowledge magnification" (Pasquinelli and Joler 2021, 1) and dethroning it from its "ideological status of 'intelligent machine'" (Pasquinelli and Joler 2021, 1)—keeping such a perception of AI would support its myth of being "something that exists independently, as though it were natural and distinct from social, cultural, historical, and political forces" (Crawford 2021, 5).

Misguided Question

The presence of "intelligent" machines was sufficiently complex and confusing, but the arrival of "creative" artificial intelligence managed to complicate things even further. The questions about whether artificial intelligence is truly "intelligent" have been present for decades but the creative aspect of such technologies is a relatively new development, which appeared in the public scene with the advent of technologies such as Midjourney, ChatGPT or DALL·E. As was the case with the term "intelligence", scholars have struggled with pinning down what exactly "creativity" is. Still and d'Inverno present a historic overview of the term, providing different definitions from its emergence in the 1950s to the present day. They start by presenting two early definitions of creativity provided by Guilford and

Stein. In 1950 Guilford understood creativity as a characteristic of those, who can come up with novel ideas. Three years later, in 1953, Stein noticed that creativity is not only about novelty—it also has to be of value and such value is assigned by a specific group at a specific point in time (Still and d'Inverno 2016, 1). More recently, Boden expanded the definition of creativity a little further. She asserted that creativity is "the ability to produce ideas or artefacts that are new, surprising, and valuable" (Boden 2016, 67). However, she also noticed the inherently problematic mysteriousness of creativity: "It's not obvious how novel ideas could arise in people, never mind computers" (Boden 2016, 67). The notion of creativity started being understood as comprised of the elements such as novelty, (perceived) value and surprise, but as noticed by Still and d'Inverno, there are still multiple "alternative ways of conceptualising what is nowadays included under the blanket term "creativity" (Still and d'Inverno 2016, 1). Moreover, the omnipresence of the concept in our language might have rendered an "even-handed debate on the matter" (Still and d'Inverno 2016, 1) entirely impossible. And yet, such a debate is imperative, as the term of "creativity" is gaining importance in the era of generative AI—"for an increasing number of engineers and scholars trying to operationalize and simulate art-making, creativity is chosen as the decisive criterion of art" (Bajohr 2020, 207).

While many decide to ask whether AI is creative, some scholars consider it, in Zylinska's words, "a misguided question" (Zylinska 2020, 49). Pasquinelli and Joler rephrase the question in relation to the training data of an AI model: "The hackneyed question 'Can AI be creative?' should be reformulated in technical terms: is machine learning able to create works that are not imitations of the past? Is machine learning able to extrapolate beyond the stylistic boundaries of its training data?" (Pasquinelli and Joler 2021, 1275). Others decide to orient the question more towards the human—"we should rather be asking [...] whether the human can actually be creative, or, more precisely: in what way can the human be creative?" (Zylinska 2020, 55). Still and d'Inverno recommend developing a skeptical attitude towards creativity "as a mental entity" (Still and d'Inverno 2016, 7). The most prevalent redirection, however, tends to shift the focus from defining creativity in absolute terms towards a relational attitude of what "appears to be creative" (Boden 2004, 7). Zeilinger asserts not that AI systems are creative but rather that they "will be (or already are) capable of generating outputs that can satisfy requirements by which creativity is currently being evaluated" (Zeilinger 2021, 1). In a similar manner, Zylinska asks: "are we still talking about intelligence? or are they just behaviours that look like [...] intelligence to us, their human interpreters?" (Zylinska 2020, 93).

Lovelace Effect

Generally, the critical scholarship around "creative" AI tends to gradually align itself with a vision of creativity (and intelligence, as the two concepts are often intertwined) that is relational, and impossible to define in static and absolute terms. As initially suggested by Stein, to be creative means to be "perceived" as creative (Still and d'Inverno 2016, 1). Perhaps the most meaningful academic contribution to the discussion of the topic was developed by Natale and Henrickson by introducing the "Lovelace effect"—an analytical tool for describing situations in which a computer is deemed "creative" or "intelligent". In contrast to the "Lovelace objection", claiming that machines are not able to originate or create anything that would go beyond the programmers' instructions (Natale and Henrickson 2022, 1), the Lovelace effect recognizes the capacity of the computer to be creative but shifts the focus "from what computers are able to do in ontological terms to the perceptions of human users who enter into interactions with them" (Natale and Henrickson 2022, 1). The Lovelace effect scrutinizes the observed creativity by taking into consideration the context in which a work is produced and how such context can impact the way that work is received by the public. In other words, "attributions of creativity can be facilitated through both representational and technical means" (Natale and Henrickson 2022, 11). According to the authors, who focused on the case study of the AICAN software, such defining circumstances might include institutional infrastructures (such as museums) (2022, 11), curatorial texts (11), material props (11), following display conventions (9), culturally informed public expectations (11), partial human authorship (10) or post-production commodification (acquired monetary value) (10). Ultimately, the Lovelace effect is concerned with seeing creativity not as an absolute phenomenon but rather as something relational, changeable, fluid and always epistemically constructed within a particular socio-cultural frame (Natale and Henrickson 2022, 11).

Bucher's observations about the significance of the communities interacting with the technology (further developed by other frameworks including algorithmic gossip, stories about algorithms and prompted imaginaries) relate closely to the assumptions of the Lovelace effect. The shared focus is not on the objective and rational descriptions, but rather on the subjective ways of thinking and assigning value, which point to the importance of studying the imaginaries of AI—which are not objective and rational, but rather collect people's intuitions and conceptions informed by personal experiences.

Defining creativity through the lens of the Lovelace effect as being a relationally constructed and largely social act belongs to the constellation of the concepts expressed in the algorithmic imaginary, algorithmic gossip, stories about algorithms and prompted imaginaries. Similarly to Natale and Henrickson, Aaron Hertzmann sees artistic creation as "primarily a social act, an action that people

primarily perform as an interaction with other humans in society" (Hertzmann 2018, 1). If an artwork always exists in a socio-cultural frame then it is the society and the culture surrounding it that should be most closely examined. If we want to get a better understanding of generative AI, we should turn to the online communities which actively use and discuss it. Assigning creativity relies on an imaginary of not only what creativity is in a specific social understanding, but also what the present and yet uncovered "creative" possibilities of a technology are—and discovering such possibilities is a task perfectly suited for the prompt engineers.

Promethean Anxiety

As observed, by Boden, there continue to be "deep disagreements about whether any AI system could possess real intelligence, creativity, or life" (Boden 2016, 3). The widespread technological shock caused by the new AI technologies and the sudden clash of the human-embodied and machine-statistical intelligence has forced a suspension of beliefs about not only what is creativity or intelligence, but a more existentially problematizing issue: what is considered innately human and what can be attributed to a machine. Such questioning of the human essence and uncertainty about what the future of living with artificial intelligence might look like, for many causes a sense of fear and dread about the human-machine dynamic. Hannes Bajohr has analysed this tension between embodied and statistical intelligence in his work on "Promethean anxiety" (Bajohr 2022). Having analyzed the concept of "Promethean shame", a phenomenon observed by Anders in the 1940s in which a human being is ashamed of her biological rather than mechanical origin (Bajohr 2022, 203), Bajohr, speaking in context of the modern AI technologies, offers the concept of Promethean anxiety as a more accurate depiction of the current human-machine relationship. He describes the phenomenon as "the fear of losing the status of maker and a reversal of the hierarchy of human and machine" (Bajohr 2022, 204). The author points to the status of artistic creation as an activity that has so far been able to differentiate between a human and an AI agent. However, thanks to the current developments in large language models, such a skill might not be uniquely human anymore. The question of whether AI will replace artists becomes "an exclamation of Promethean anxiety" (Bajohr 2022, 206). Visual outputs of algorithmic machines reaching the level of human outputs are causing a particular stir, because, as noticed by Sam Altman, the CEO of OpenAI, "images have an emotional power" (Heaven 2022b). Even though text-generating technologies such as ChatGPT might find application in a larger variety of professional fields, "the rest of the world was much more amazed by DALL·E than GPT-3." (Heaven 2022b).

Promethean anxiety functions as an imaginary. It encompasses ways of relating to the technology that rely on personal or social experiences, subjective observations and imagined futures. The historically

accepted narrative of humans seen as uniquely creative entities falls apart when, faced with the generative AI, many decide to assign the label of "creativity" to the non-human. And, as described by the Lovelace effect, what is deemed creative, becomes creative. The existential crisis connected to the "creative" capacities of AI technologies emerges from the particular position that creativity, and with it creative jobs, have in our lives. Automation and the emergence of AI are often supported by the promise of infinite leisure, a reality where no one would have to work any longer because all the hard labour would be performed by "intelligent" machines. However, the loss of the need for humans performing *creative* labour, effectively losing "the status of maker" (Bajohr 2022, 204), introduces a different type of fear. Creative labour is an expression of our humanity, it allows for leaving a tangible mark, a creative legacy that others can remember us by and benefit from. Creativity is tightly connected to the definition of what it means to be human. It is understandable that many would gladly part with the boring, repetitive and sometimes dehumanizing types of labour that they still have to perform in the current economic system. However, being completely replaced by a machine in one's creative ventures understandably causes the arisal of Promethean anxiety.

The possibility of a reversal of the hierarchy between the superior human and the inferior machine is something that undermines the very position of humans as the ultimate masters of the world. In relation to the fears painted by Bajohr, Arielli and Manovich recognize a particularly interesting relationship between AI's abilities and where we decide to draw the line of what "true creativity" or "true intelligence" is. Our society pushes for technological development to reach the state of Artificial General Intelligence (AGI), but as the machines step by step complete more and more tasks required to be considered "creative", we desperately raise the bar of what that AI has to achieve in order to be deemed the "true singularity". As observed by Arielli and Manovich, "Every time machines 'solve' a specific human skill, this skill ceases to be real intelligence, turning out to be more mechanical than it appeared" (Arielli and Manovich 2022, 7). The challenging relationship goes both ways. What becomes slowly exposed is that it is not the machines that are getting that much more human but rather that the human skillset reveals itself to be more machine-like and predictable than we would like to admit. Importantly, Arielli and Manovich explain why the arrival of creative AI might cause a new wave of Promethean anxiety:

> *"The encounter between AI and aesthetics is crucial because art is considered a quintessentially human domain and its intractability and complexity have long appeared insusceptible to algorithmic reduction. Many people consider art, aesthetics, and creativity to be the pinnacle of human abilities; they are therefore seen as the last barricade against the advances of AI."* (Arielli and Manovich 2022, 7)

Simply put, if art falls, humanity falls. And even though, as some argue, “machines [...] don’t replace human creativity but enhance it” (Heaven 2022a), the fear of just how far technology might advance remains. It seems that we like to think that what it means to be human includes some degree of a black box—a sense of transcendent mysticism, something exceptional about the human mind (or soul) that cannot be replicated or automated by a machine or even strictly defined. And so far, we seemed to be safely correct and comfortably unchallenged in such thinking. Technologies came and went, but they were still just that—technologies. We became accustomed to having some knowledgeable human out there who had complete comprehension and mastery over a technology and could control its behaviour. But suddenly, in the era of generative AI, there is something non-human that has the sense of a transcendent black box to it and we do not know how to approach it. What kind of a being is this new species of AI, not revealing itself fully even to the very engineers who have built it? We tend to assume that AI is not human. At least its black box is different from the human one. In a state of such uncertainty, many tend to rely on familiar metaphors, looking back at two other types of phenomena to which we have historically (and mythically) assigned the black box of transcendence—the magical and the divine.

Magic And Divine

The Failed Disenchantment

In 1918, Max Weber, a German sociologist, conducted a lecture in which he introduced his diagnosis of the modern world as “disenchanted” (Chua 2016). In his conceptualisation, the modern world is “characterized by rationalization and intellectualization” (Weber 1964, 155) and it is that very loss of magic and belief in the supernatural that has made the capitalist societies of Western Europe and North America “modern” (Josephson-Storm 2017, 4). In a disenchanted world, “there are no mysterious incalculable forces that come into play” (Weber 1964, 139)—rather, everything can be mastered by reason-fueled calculation (Weber 1964, 139).

Over half a century later, many still seem to accept that, as a developed society “we have eliminated ghosts, demons and spirits from the contemporary worldview” (Josephson-Storm 2017, 1). All the accounts of the scientific tale of disenchantment (Josephson-Storm 2017, 3) including the "rise of instrumental reason, the gradual alienation of humanity from nature, and the production of a bureaucratic and technological life world stripped of mystery and wonder” (Josephson-Storm 2017, 4) are familiar and widely accepted narratives of what constitutes technological progress.

However, in his 2017 work *The Myth Of Disenchantment*, Josephson-Storm argues that the "account of modernity as despiritualization is [...] a myth" (Josephson-Storm 2017, 2). The exponential development of advanced algorithmic technologies in the years following Josephson-Storm's publication seems to only confirm his take. We think we live in a disenchanted world, but the discourses of religion and magic permeate the way we talk about AI on a daily basis. Clarke's Third Law, even though stated in the early 1970s, seems to be accurate like never before: "Any sufficiently advanced technology is indistinguishable from magic" (Clarke 1973, 60). In light of the novel algorithmic technologies, Pedro Domingos takes the phrase even further: "Any sufficiently advanced AI is indistinguishable from God" (Domingos 2015, 285). In his book *Homo Deus*, Yuval Noah Harari compares the notion of algorithmic belief to the notion of Christianity: "Just as according to Christianity we humans cannot understand God and His plan, so Dataism declares that the human brain cannot fathom the new master algorithms" (Harari 2017, 635). The algorithmic technologies, in their incomprehensible alienness, see patterns exceeding human cognition which have suddenly elevated them to a superior position of an all-knowing prediction machine. But why would such a god-like reputation of deep learning be upheld by the big tech corporations? When technology is assumed to have its own agency, especially a superhuman one, it becomes problematic to govern. After all, who would have the audacity to regulate a deity? Safiya Noble notices that algorithms, when framed as removed from external impact, become "their own 'truth'" (Noble 2018, 27) and shield tech companies from accountability and public scrutiny—despite the presence of strong evidence against these "truths". The gospel of algorithms, even though shaped under strict corporate supervision, becomes unquestionable. Suddenly, the rhetoric "situates deep learning applications outside of understanding, outside of regulation, outside of responsibility" (Campolo and Crawford 2020, 9). When the customers, stakeholders, regulators and users buy into a fantasy of AI conceptualised as a mystical power, the lucrative financial consequences for the producers of that technology become very apparent.

Another reason for the pervasiveness of AI seen as mystical power in the circles of the tech industry might be more surprising and subconscious, even for the very members of these circles. As noticed by Ezra Klein, the communities responsible for building AI technologies often come from and exist in strongly atheistic environments, stripped of any religious beliefs and rituals (Newton and Roose 2023). Their daily disenchanted reality, when confronted with those new, strange, all-knowing technologies, gets tinted with a divine spirit. Algorithms and their mysterious black boxes fill the gap of transcendence missing from their lives. In a society assuming a sceptical attitude towards the traditional gods, technology forms a fitting replacement. As pointed out by O' Gieblyn, AI technologies started acting as a replacement for the functions of religion and philosophy:

> *"Artificial intelligence and information technologies have absorbed many of the questions that were once taken up by theologians and philosophers: the mind's relationship to the body, the question of free will, the possibility of immortality. These are old problems, and although they now appear in different guises and go by different names, they persist in conversations about digital technologies much like those dead metaphors that still lurk in the syntax of contemporary speech. All the eternal questions have become engineering problems."* (O'Gieblyn 2021, 13)

The grandeur of such eternal questions is nothing new. The thoughts of alien entities confronting humankind, more-than-human incomprehensible eternalities and the mysteries of a universe beyond human comprehension have always inspired both awe and fear. For centuries, when faced with deep spiritual experiences or an immense natural phenomena, humans have experienced a unique feeling, which we now tend to recognize as "the sublime".

Algorithmic Sublime

Generative AI technologies have a deep sublime effect on the public. The sublime is a huge philosophical concept, way beyond the scope of this thesis—however, the concepts of "technological sublime" (Nye 1994), and especially "algorithmic sublime" (Ames 2018), might prove useful in understanding the origins of the magical and divine discourses of AI. As noticed by Ames, the "feelings of 'sublime'—of awe and terror that overrides rational thought" are heavily encouraged by the contemporary public discourses on algorithms (Ames 2018, 1). The fear of competing with a possibly superior machine, as expressed in the concept of Promethean anxiety, melts with the awe about the possibilities offered by the same technology—creating an ambiguous, dynamic, and intense experience.

Additionally, the more black-boxed a technology is, the higher chance it has of evoking in us "feelings of a technological sublime" (Ames 2018, 2). The less complex, rule-based algorithms that help in tackling simple organisational tasks or data retrieval often fail to impress (Ames 2018, 1). They are appreciated as useful tools, but never elevated to a position of supreme technologies. However, as soon as algorithms gain in their levels of complexity and are "uninterpretable, even to the engineers who created them" (Crawford 2021, 214), they easily capture social imagination (Ames 2018, 1) and fall under the framework of prompted imaginaries. In a disenchanted, atheistic society, the technological sublime evokes a deity: "In a [...] world that is increasingly desacralized, the sublime represents a way to reinvest [...] the works of men with transcendent significance." (Nye 1994, xiii). AI gains a world-changing importance, and is portrayed with a "sublime aura of saviour" (Bareis and Katzenbach

2022, 867) or “as a breakthrough, a revolution, almost a sublime force that lets society enter a new epoch in history” (Bareis and Katzenbach 2022, 864). It is an inevitable force to be trustingly followed by all.

Enchanted Determinism

The sublime feelings of awe and terror, and an inherent uncertainty surrounding the essence of artificial intelligence, coupled with the unstable definitions of concepts such as "intelligence" and "creativity," have a visible influence on popular and professional discourses. The complex nature of the algorithms paired with their capacity to produce awe-inspiring outcomes, contributes to a tendency to invoke magical narratives and references within personal and public rhetoric. The enchanted ways of thinking about the sorcery of AI exist within the framework of the algorithmic imaginary. In an attempt to comprehend the emergent technologies, common users, media and industry experts alike rely on positioning them against the familiar concepts of magic and religion. Ali Rahimi, an AI researcher at Google, compared the machine learning algorithms to alchemy (Hutson 2018). Writing for Forbes, Rob Toews stated that the “magic” of the new text-to-image generative technology is that it “unlocks previously unimaginable possibilities” (Toews 2022). Google’s new AI-driven photo editing software is called “Magic Editor” (Peters, 2023). After interacting with the image-generating software, Andy Baio, a blogger and technologist, expressed that he has never felt “so conflicted using an emerging technology such as DALL·E 2, which feels like borderline magic in what it’s capable of conjuring” (Baio 2022). Even though in an ideal world the “narratives about intelligent machines should broadly reflect the actual state and possibilities of the technology." (Cave and Dihal 2019, 74), the common users and expert communities fuel their AI imaginaries with myths, metaphors and magical discourses (Bareis and Katzenbach 2022, 857).

Algorithmic intelligence triumphs as exceeding human capacity. An algorithm becomes an enchanted deity, a magical being, the solution to all of humanity’s problems. As Joler and Pasquinelli notice, “AI is an occult power that cannot be studied, known, or politically controlled.” (Joler and Pasquinelli 2021, 4). Crawford adds: “AI systems are seen as enchanted, beyond the known world” (Crawford 2021, 214). Bareis and Katzenbach observe that leading technological narratives “lend agency to technology that transcends human control, confronting society with a seemingly all-pervasive and inevitable development” (Bareis and Katzenbach 2022, 867). Suddenly, the central building blocks of algorithmic culture are beyond humanity. They transcend our control and turn us into mere awe-filled (and often, as sublime experience would suggest, fear-filled) observers, passively taken on “a seemingly inevitable technological pathway.” (Bareis and Katzenbach 2022, 857). The “unthinkable complexity” (Pasquinelli

and Joler 2021, 12) of multi-dimensional vector spaces forces the human mind to rely on metaphorical, and often inaccurate, rhetorical explanations. Paying attention to such metaphorical ways of thinking is essential—"metaphors, after all, are not merely linguistic tools; they structure how we think about the world [...]" (O'Gieblyn 2021, 26). Campolo and Crawford captured the strange nature of algorithmic storytelling in the term "enchanted determinism":

> *"[it is] a discourse that presents deep learning techniques as magical, outside the scope of present scientific knowledge, yet also deterministic, in that deep learning systems can nonetheless detect patterns that give unprecedented access to people's identities, emotions and social character."* (Campolo and Crawford 2020, 3)

This ability to judge the present and the future without the inferior human shortcomings reminds heavily of the ancient Delphi or contemporary religious deities. Despite humans being unable to fully understand them, and perhaps even for that very reason, they are believed to have "superhuman insights and accuracy" (Campolo and Crawford 2020, 1), and see patterns that humans cannot see. AI's important position as a predictive authority in a variety of professional fields, from "healthcare to creditworthiness to the management of utilities" (Ames 2018, 2) is supported by the "faith in algorithmic power and agency" (Ames 2018, 4) distributed by awe-inspired humans and fueled by the rhetoric of mysticism and technological determinism. It is here that all possible types of imaginaries converge to create a truly problematic and incomplete image of what artificial intelligence really is.

Campolo and Crawford provide an excellent analysis of a complex and paradoxical relationship between advanced AI technologies and the theory of disenchantment. They recognize that on the one hand, deep learning systems "embody aspects of a disenchanted world in that they work to master or control new domains of social life through technical forms of calculation" (Campolo and Crawford 2020, 5) and often emerge from "the same scientific domains which are strongly associated with disenchantment". Additionally, algorithmic systems deliver promises of efficiency, accuracy and rational decision-making that are not contaminated with human biases (Campolo and Crawford 2020, 5). On the other hand, however, deep learning systems "violate the epistemology of disenchantment" in a sense that "when the disenchanted predictions and classifications of deep learning work as hoped, we see a profusion of optimistic discourse that characterizes these systems as magical, appealing to mysterious forces and superhuman power" (Campolo and Crawford 2020, 5). Through conveniently challenging or intensifying the diagnoses of disenchantment, deep learning can successfully hide the material realities of harmful cycles of prediction and categorization, which form the basis for the production of its outputs. As a result, the algorithmic embrace of multiple social institutions can "deepen existing power imbalances

between those who create the technologies, and those on whom they act" (Campolo and Crawford 2020, 5).

The seemingly unending technological progress has put us into a disenchanted assumption that the more technology we will introduce into our daily life, the more clarity about the world and our position in it will we obtain. However, as the technologies become gradually more black-boxed, the age-old equation seems to fail us. We live under an illusion of control of our creations. The goal of technological development has often been wider social access to these technologies and frictionless communication with them. The more the generative technology develops, the more the natural language becomes the way to interact with the computer. However, paradoxically, the easier it is to interact with the machine, the less we understand it. The binary system gave the programmers a stronger grip on what exactly they wanted to communicate to the machine. Admittedly, using this obscure language, fewer people knew how to interact with the computer, but the few experts that could, possessed very deep and extensive knowledge and a sense of certainty about what kind of technology they are dealing with. Now, with the generative AI technologies becoming gradually more complex and inscrutable, many elements of communication become lost in translation resulting in the sense-making practices being reduced to observing the relationships between inputs and outputs, with little access to the internal operating processes of the machine—all characteristic elements of a prompted imaginary. Such lack of epistemic access provides a fertile ground for the growth and spread of the mythologised and magical theorizations of the technology.

Despite scholars such as Crawford stating firmly that the algorithmic technologies, though charming as they may seem, are not magic, but simply "statistical analysis at scale" (Crawford 2021, 215), the media coverage, tech corporations and even common users continue to fabricate the vision of AI as magical and superhuman. Top-down and bottom-up imaginaries collaborate closely in forming a dangerous rhetoric that not only overestimates the capacities of AI and shapes "both social perceptions of these systems and the practices of their designers" (Campolo and Crawford 2020, 3), but, more problematically, covers up its biases, shortcomings and harsh material realities. The enchantment takes over and the rhetoric continues to fuel the fantasy.

The imaginaries of generative AI are intricately intertwined with a variety of theories surrounding creativity, intelligence, sublime and magic. What many of the scholarly frameworks highlight is the importance of studying not only what machines do, but, more crucially, the users' perceptions of machine behaviour and the influence of these perceptions on the human-computer interaction. It is the social conventions and users' convictions that shape the criteria of what it means to be "creative" or

“intelligent”. It is the user-level experiences that fuel the magical discourses and comparisons of the AI to humans, deities or alien-like entities.

Technology exists and is experienced within a social context. The discourses surrounding AI depend on many terminological approximations, cognitive metaphors and constructed technological rhetoric. It is important to understand the generative AI as existing within relational and dynamic frameworks rather than static and absolute contexts. Thus, investigating the imaginaries of AI becomes paramount, as, in their subjective nature, they embody individuals' intuitive perceptions and notions shaped by personal experiences.

What becomes clear is that the imaginaries have the productive power to influence the future realities. In their passage from discourse to decision and from imagination to action (Jasanoff and Kim 2009, 123), they shape social expectations and influence the technological development. Definitions and predictions prescribed by powerful agents such as governments, academia, tech companies, and designers have limited influence on material futures and can be redirected or challenged by user imaginaries.

The value of introducing the idea of “prompted imaginaries” lays in acknowledging that the generative AI has brought about significant shifts in use, function, scale and complexity, thereby necessitating examination through a novel analytical lens. Despite the distinctions between generative AI and preceding technologies, the importance of studying its social context remains. With prompting being the central point of interaction with the generative model, it is necessary to investigate not only what the models and the companies responsible for their production do, but how the communities engaged in practices of prompting reveal their imaginaries of the technology—and how these imaginaries can influence the future of the technology.

Methodology

In order to investigate the AI imaginaries formed by discussions around prompt engineering, I will base my analysis on the case study of the prompting community of Midjourney. The creativity-oriented context of this thesis makes Midjourney a particularly suitable candidate for analysis. In contrast to Stable Diffusion or DALL·E, Midjourney's founder, David Holz, states his company's product's objective as being primarily artistic (Vincent 2022). The model is fine-tuned to produce "beautiful" content and it is really difficult to force it to divert from that into the direction of deepfakes, gore imagery or even photographic content (Vincent 2022). As noticed by Parsons, "while DALL·E is designed to generate anything you can imagine—including the mundane or ugly—Midjourney has a bias towards creating painterly, aesthetically-pleasing images by default" (Parsons 2022).

Even more important, however, is Midjourney's attitude towards collaborative knowledge exchange between different users of its software. Midjourney is hosted on its own Discord channel. Whenever a user wants to create an image using the software, she has to do so via one of the public *#newbie* Discord channels. This allows any newcomer to be faced with an endless flow of new prompts typed in by the "open-by-default community" (Midjourney, n.d.-c) of Midjourney. In the words of David Holz, "People want to make things together" (Vincent 2022), and, in order to allow for such social interaction, the company decided to run its software in the Discord environment. While creating a Discord account and joining the Midjourney server is free, the basic usage plan allows the non-paying users to generate only 25 images. After reaching that limit, the users would have to upgrade to a paid plan (Wankhede 2023). However, even though not everyone can actively experiment with their own prompts, the ability to join discussions and observe others' outputs on the public channels, makes the Midjourney the most suitable AI image-generating software to analyze.

My analysis of the discursive landscapes emerging in online spaces dedicated to discussing prompt engineering within the Midjourney software will be conducted in two stages. In the first section, I will turn to Twitter. Before the model was publicly available, the company used to share its updates and interact with its prospective users via this social platform. In order to present both the company's recognition of the importance and alluring simplicity of a prompt, and early user excitement resulting from this seemingly "magical" way of interacting with AI, I will start my investigation by presenting excerpts from Midjourney's Twitter thread from the 21st of March 2022 (Midjourney 2022). In the tweet, the company asked people to think of some prompts they would like to see the results of, type them as answers and in return, Midjourney would show them what visual response the prompt has

generated. Focusing on the users' responses and reactions, I will present how excited people were to try out prompts as a creative method, what kinds of imaginaries they immediately turned to and how simple the construction of prompts was at that early stage. For my dataset, I will collect only the text of prompt requests from the users that were answered by Midjourney on the 21st and 22nd of March 2022. The textual suggestions of the users are the key elements revealing the underlying imaginaries of generative AI. The actual images generated by the software in response to the prompts are of marginal importance and hence have not been included in the dataset. The table compiling all the user responses divides the dataset into five categories (Style Transfer, Fiction, Reality, Poetry and Abstraction, Science Fiction) and is included in the body of text as table 1.

My second, and most extensive section, will be focused on analyzing the exchange of prompting knowledge between users on one of the threads of Midjourey's Discord. As mentioned earlier, Midjourney's Discord is not only used to generate visuals but also a place for a lively discussion on any topic related to the model. It is here, in the *#Artist Visual Style Encyclopaedia* thread that Jason Allen has announced his AI artworks' victory at the Colorado State Fair's Fine Arts Competition. One can find community forums, such as *#image-jams* or *#prompt-faqs*, showcases such as *#show-and-tell* or *#wip*, and chats such as *#philosophy* or, the most relevant to my study, *#prompt-chat*—"a dedicated discussion room for talking about how to craft prompts". *#Prompt-chat* has roughly twelve key threads (and multiple less active ones) on which users discuss various topics, ranging from how to improve the quality of typography generated by Midjourney to how to use ChatGPT to create prompts. The main focus of my imaginary-oriented study will be on the thread *#💬Talk-💥WOP! (Words Of Power)*, where users are asked to "share words and phrases that have a dramatic influence on prompts". The thread has been moved on the 24th of November 2022 from the community forum *#prompt-faqs* section called *💡PROMPT BUSTER - Share your secret 1 word or token phrase that drastically changes results!* which was created on September 20, 2022. I will perform a chronological reading of the whole discussion, starting with *PROMPT BUSTER* and moving on to *WOP*.

Even though the prompt-engineering discussions happen also on other platforms such as Twitter, Reddit or even Instagram, it is the Discord channel where most wanna-be professional prompters (or, as the emerging jargon dictates, "power users") seem to host their discussions. Even though the current user base of Midjourney's Discord reached 14 mln, the *WOP* thread is used only by roughly 70 prompters. In contrast to platforms such as Twitter or Reddit, the importance of a post cannot be decided by looking at the number of likes, comments or reactions. The number of users is relatively small, and the number of reactions is not necessarily indicative of the contribution's impact. Instead, reading the whole discussion contained within a specific thread gives a better idea of the types of

imaginaries that are being formulated by the users. Focusing on just one thread (*WOP* and *PROMPT BUSTER* essentially form one thread, as one is just a continuation of the other) from a wider prompt-oriented server drastically limits the size of the discussion one has to read through. I will delimit my dataset further by focusing on posts of users who not only shared a powerful token phrase but also added at least one visual example of the prompted result—with such an approach, only the users that are strongly committed to building a shared repository of knowledge will be considered. At the beginning of my Discord analysis I will present a table collecting different prompting goals expressed by the users. The table divides the data into four categories (Ambiguous, Professional, Artistic Look, Emotional Charge) and can be found in the body of text as table 2. Subsequently, in the process of sifting through the whole *WOP* thread (and its predecessor *PROMPT BUSTER*) and creating my main dataset of Discord discussion, I will collect three types of content: the "word of power" shared by the user, the full text of the user's contribution and the example images attached to the message. The table and can be found in the appendix as table 3.

The data collection of the Midjourney's Twitter and Discord concludes on the 31st of March 2023 and hence any data posted after that date will not be included in the analysis. In order to protect the privacy of the users of both platforms, no usernames and no direct links have been added to the datasets.

The purpose of my methodology is to gain a comprehensive overview of the chronological shifts in formats and debates about prompting between the early Twitter promises of the Midjourney company and the advanced prompt engineering methods shared by pro-users on the Discord channels. Overall, this study aims to provide insights into the AI imaginaries that emerge from online discussions around prompt engineering, using the community of the Midjourney Discord channel as a key case study and Midjourney's early Twitter activity as additional context. By examining the language, themes, and rhetoric used in the discussion, the study seeks to shed light on the ways in which users imagine and conceptualise AI and its possibilities, the concepts of creativity, and the role of human agency in these processes.

Analysis and Discussion

Twitter

Developing Appetites

Many contemporary companies, including those in the AI industry, tend to announce any updates to their business or software on a variety of social media outlets. Midjourney's social media presence is quite humble and the company decided to keep its Discord as the main point of contact with its user base, which they also openly announce on their website: "For product support or questions please join our Discord and ask questions in our #support chatrooms" (Midjourney, n.d.-a). Before the release of Midjourney's Discord, the company had to announce its ventures via an alternative medium—Twitter. However, even there the company's activity has been sparse. Even though the account has been created in September 2020, the first post (announcing sign-ups for a limited beta version of the software) was only posted in March 2022. Between that date and October 2022, the company has released only eighteen tweets—an unusually small number for a key player in a dynamically developing generative AI software industry. In March 2023 the company started posting more regularly, with a frequency of roughly 3 posts per month, but their communication strategy is still tightly connected to Discord.

The focus of this analysis is on the second-ever tweet shared by Midjourney and the responses it has received. On March 21st 2022, months before the software was widely available, the company asked its followers to send in their ideas for prompts as answers to the tweet and Midjourney would respond to the prompts with the images generated by their model.

Figure 1. Midjourney's Twitter post requesting prompt ideas from users (Midjourney 2022).

The post can be seen as a marketing event, promoting the incredible capacity of the Midjourney software to generate gorgeous images with an input of mere few words of a prompt. The move has been certainly successful. Hundreds of users responded with their prompt ideas (many of which remained unanswered). Some, answering the question of "what do you want to see?" replied with tongue-in-cheek reactions such as "An invite in my inbox. 🙏", "An invite.", "An invite to the beta" etc. To these impatient prospective users, Midjourney responded with a calming message: "We're expanding the beta as fast as we can, thanks for your patience! <3". And indeed, over the next weeks, a larger and larger group of users were gradually admitted to the creative Discord environment.

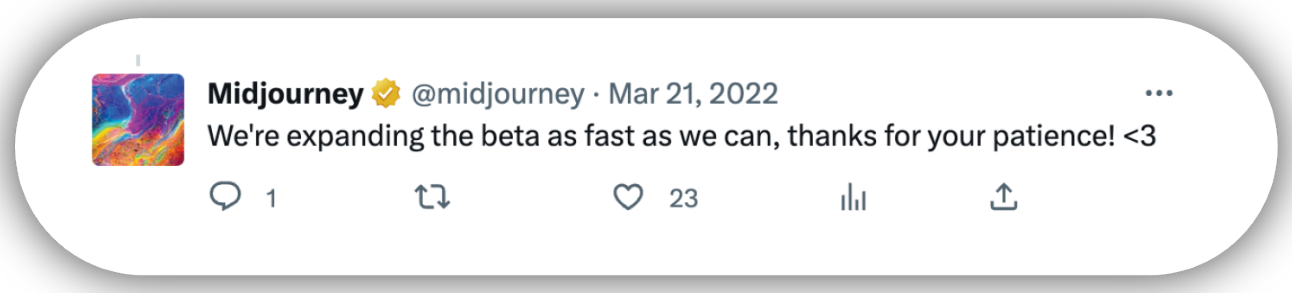


Figure 2. Midjourney's response to users requesting access to the software (Midjourney 2022).

Typology of The Early Imaginary

The table below provides an overview of the different prompt requests submitted by the users. Following the five prompt categories, the table's contents are described in the paragraphs that follow.

Table 1. An overview of the prompts sent by the users in response to Midjourney's Twitter post from March 21st 2022 (Midjourney 2022).

Style Transfer	Fiction	Reality	Poetry and Abstraction	Science Fiction
A sunflower in the style of Basquiat	an ancient aztec dragon fighting an ancient chinese dragon in the mountains	a good film poster.	The meaning of life	Llama in the space
God is in his heaven, all is right with the world" by Zdzisław Beksiński	A cowboy riding a tardigrade.	Mood lighting in a cozy bookshop	colorless green ideas sleep furiously	the 10,000 eyes of the all seeing cyber cosmic dragon
Cyberpunk San Francisco in the style of Monet	snow in tropical country	Advanced typography	the most charming dream	human eyes made of space nebula
Influencer walking down the street of a Cyberpunk city of the future by Vincent Van Gogh.	Snow flooding desert	Hong Kong covered in snow	Absolute happiness	Across the sea of space, the stars are other suns
Brutalist building facades with limited color palette, architecture | flat design| minimalist| by Michael Whelan and RHADS| featured on artstation| propaganda poster|	submerged Petra	Medieval Age Kitchen	Moment of clarity	Space knight slaying the dragon on moon
Drums designed by Dieter Rams	Duck sipping tea	a tajine in jamaa el-fna	"An amusing answer to the ultimate question"	Soviet cosmonaut in torii kiyomasu 2 art style.
Wes Anderson summer camp	Tyrannosaurus Rex in Tokyo neon night style	Shadow play of a dog or a wolf in the twilight	at the end of the rainbow there is just void	Celtic knots pouring out of a galactic centaur
A car designed by H.R. Giger	Kraken eating a building	Kids playing football at the sunset with snowy mountains as the backdrop.	"Abstract portrait of a meaningful life"	Mies van der Rohe cyberpunk
A geometric tesselation showing doves of peace in the style of Escher	Earth and sun traveling along an infinity loop surrounded with love hearts	Birds flying through silly string	After many summers dies the swan	New york floating in space
A red panda in a spa, painted in the style of Douanier Rousseau	Indiana Jones fights a dragon in Berlin	the thing I'm gonna eat tonight	the future Taiwan city in my dreams	pixelated dithered space robot made of plants
A Dadaist duck	Fractals Etched into the Mountains | Low-Poly Art with Celtic Textures	A painting of Massimo Bottura made using spaghetti	Only a simulation can be conscious	Telepathic mobile phone
The Mona Lisa by Katsuhiro Otomo	Ancient Druid Shrine Of The Elkwood Labyrinth	Neon Roads at night	Melting Clocks but in spaghetti	interstellar space travel
A portrait of Jeff Bridges in the style of Gustav Klimt.	A pasta shape that explodes when you eat it		Faith to nothingness	Human colony on mars
Groucho Marx in the style of Salvador Dali	The Mandelbrot Connectome		Patent for generating hope	a spike coming out of the ocean with a spaceship shooting a red plasma beam into the water with a kraken in the background destroying a viking ship
Pearly Gates in the style of Monet	A matte painting of a pharaoh meeting Heptapod in a hazy forest		"Is it bullish or bearish?"	Alien interfaces
Underwater city by Greg Rutkowski	A tentacular city		My favourite place	A Cyborg Human
				An ecological solarpunk utopia.
				1980s science fiction book covers

Style Transfer

The first category collects reactions related to one of the most popular modifiers that common, amateur users resort to—the style transfer. The style transfer method involves taking a visual concept or an idea and asking the model to create it in a style of an existing artist (dead or living), whose work the user is familiar with. “A red panda in a spa, painted in the style of Douanier Rousseau” or “a sunflower in the style of Basquiat” are perfect examples of such simple style transfers. People resorting to such prompts see the AI model as a simple reproduction machine, able to paste the peculiar touch of a specific artist from her own works onto topics she might have never painted, but now, thanks to the user’s prompt, has to—with its artificially intelligent, copied digital persona. Style transfers form a very basic and controversial aspect of artistic AI use. Zylinska talks about it in quite dismissive terms. She worries about the “public and, inevitably, curatorial fascination with what we may call ‘AI imitation work’, also known as ‘style transfer’" (Zylinska 2020, 50). Many artists’ modifiers requests are of dead and widely popular artists with a strong recognizable aesthetic such as Dali, Van Gogh or Monet, which does not stir much discussion. However, much more serious problems arise when a modifier such as “by Greg Rutkowski” comes into play. Rutkowski is a living digital artist, mostly known for his crisp and detailed concept artworks. He is also famously one of those most impacted by being reduced to a mere modifier (Heikkilä 2022). His consistent practice of uploading his work in high quality and annotating it with English alt-text made him an easy target for the generative models’ dataset scrapers—and even in this small dataset of one Twitter thread we can see a request using his name: “Underwater city by Greg Rutkowski”. Additionally, in his work, Rutkowski often focuses on the visual topics of the medieval, magic and science-fiction (Rutkowski, n.d.). As this analysis will show, sci-fi inspiration and comparisons to magic form some of the foundational imaginaries of AI, which makes Rutkowski’s work particularly attractive to many prompters.

In general, the style transfer method of prompting hints at the users’ underlying imagination of the model’s capacities as rather limited. Prompting by attaching “by [artist’s name]” to the end of one’s prompt is a rather uncreative way of generating images. It shows a very basic understanding not only of what the model is capable of but also hints at a low creative curiosity of the user. More worryingly, style transfers are the root of one of the main accusations that the generative AI companies face nowadays. The fact that the style transfer works, means that the model has an understanding of what kind of a style an artist has. In order to have such an understanding, the model needs to have multiple examples of the creator’s work in its dataset—which further means that the generative AI companies must have scraped millions of images from thousands of artists, without obtaining their explicit consent or providing appropriate financial compensation.

Fiction and Reality

The “Fiction” and “Reality” categories seem to be quite similar but there is an important difference between them—because of that, this subsection covers them in simultaneity. In the “Reality” section I have collected prompts that ask for images of things or events that could be observed in the real world. Essentially, an image generated by the AI model as a response to “mood lighting in a cozy bookshop” or “kids playing football at the sunset with snowy mountains as the backdrop” could closely resemble the photographic imagery in the model’s dataset. It is possible to imagine seeing such a bookshop or the scene of playing kids. There are no fictional creatures here to be imagined, no abstract mysteries to be painted. The “Fiction” section collects prompts that ask for imagery that one could not witness in the real world. These prompts are closer to what illustrators, concept artists or special effects experts find in their briefs and have to visualize via artistic means. “A cowboy riding a tardigrade” is not possible to witness in the real world, but can be easily drawn by a skilled illustrator. A scene of “an ancient aztec dragon fighting an ancient chinese dragon in the mountains” cannot be captured in a photograph, but an animator can quickly assemble such visualisation. We have no documentation of the city of Petra being submerged, but with the right software, a 3D designer could easily create a scene presenting such a visual. Although prompts of both categories ask for figurative elements such as a specific person, action, or place, one of them (“Fiction”) seems to test the more creative possibilities of the model. The underlying, possibly subconscious goal of the users formatting such prompts is evaluating the Midjourney software as an apt replacement for the living artists, who, so far, were responsible for the visualizations of fictional worlds.

Such methods of “testing” the model are an important manifestation of the Lovelace effect. Holding a specific understanding of what creativity is, the users prompt the model with phrases of different levels of abstraction or imaginative difficulty. The resulting attribution of creativity to the model depends on how convincing (in terms of aesthetic pleasure, colour scheme, originality or other metrics) the outputs generated by the technology might be. The perception of technology obtained through prompting starts forming the imaginary of AI as creative or not.

Poetry and Abstraction

The prompts of this section are from users who want to test the model’s responses to stimulation with themes and questions of a more abstract nature. In “Poetry and Abstraction” the requested imagery does not specify the figurative content of the images—rather, it simply serves a set of poetic or abstract

phrases to the generator, awaiting its response. Some prompts still hold a resemblance to the figurative requests of the previous categories, but here, either the topic incorporates some form of abstraction (“the future Taiwan city in my dreams”, “Patent for generating hope”, “at the end of the rainbow there is just void”) or the prompt is expressed through much more unusual or even poetic linguistic means that diverges from a standard caption-like format (“After many summers dies the swan”, "Is it bullish or bearish?").

A particularly interesting prompt example is “colorless green ideas sleep furiously”. It is a well-known sentence constructed by Noam Chomsky, showing how syntactically correct sentences that follow the rules of the English language do not necessarily carry the same level of semantic correctness (Policar 1997). The user asking the AI to “solve” such prompt, exploits the idiosyncrasies of human language, specifically, its ability to construct semantically nonsensical ideas in a grammatically correct format, and wants to see how the AI model will react to such an unusual construction.

Many prompts ask the model to show its understanding of very ephemeral topics and ideas: “The meaning of life”, “Absolute happiness”, "Abstract portrait of a meaningful life" or “Moment of clarity” touch upon existential questions or the mysteries of the human condition—and the humans are curious to find what AI might have to say about them in a visual form. Especially the types of responses that the model will give to those existential prompts might eventually result in the formation of divine discourses—if this new “intelligent”, more-than-human technology has answers to questions that the human race has been asking since its inception, then perhaps it should be given a position of an all-knowing deity. That, of course, did not happen in this particular instance. The images generated by Midjourney were not very surprising and presented pleasantly-coloured depictions of mountain landscapes and figures sitting in contemplation—imagery that one could see on covers of spiritual or self-help books. The model did not generate anything novel, but, in simplified terms, probably looked at the types of words given to it in a prompt and, sifting through its latent space, found the visual cues that most frequently connect with such themes.

However, if the AI would reveal some unexpected knowledge that has not been accessible to humanity before (or rather, following the Lovelace effect framework, if users *perceived* the AI as revealing such knowledge)—the resulting imaginary of this technology could exemplify what Campolo and Crawford described in their concept of enchanted determinism. Prompting the models to address “unsettled — and perhaps unresolvable — concepts like intelligence and consciousness” (Herrman 2023) hints at the tendency to see the technology as mysterious and powerful. The answers given by the models can be seen as transcending human control or comprehension, fostering the view of the technology as magical

and deterministic. Granting the AI with such a sense of unquestionable authority, basing it on "the combination of predictive accuracy and mysterious or unexplainable properties" (Campolo and Crawford 2020, 1), shields the companies responsible for producing it from much-needed critique and regulation (Campolo and Crawford 2020, 9)—which is part of the reason why the deep learning experts "deploy enchanted, magical discourses to describe these systems' uninterpretable mechanisms and counter-intuitive behavior" (Campolo and Crawford 2020, 1).

The discourse of enchanted determinism actively shapes the imaginary of AI—including the current understanding of the technology and the expectations of the futures it might bring about (Campolo and Crawford 2020, 9). The reasons behind the structure of the AI's answers to prompts are almost completely opaque—however, it is that exact impenetrability that frames the technology as an entity beyond human cognition and opens the door to a future in which many could trustingly follow the AI gospel into the techno-deterministic reality of machines that "know better".

Science Fiction

The final category of prompts shows how much the imaginaries surrounding new technologies are still grounded in the age-old elements of science fiction storytelling: space exploration, cyberpunk, rogue machines, utopian (or dystopian) future of humanity. We can see the users asking AI to reveal to them "pixelated dithered space robot made of plants", "Telepathic mobile phone" or "a spike coming out of the ocean with a spaceship shooting a red plasma beam into the water with a kraken in the background destroying a viking ship"—each of them an image stolen from a science-fiction shelf. Here, the prompts are expressions of the existing imaginaries, mostly formed by popular culture, about what kinds of futures the truly ground-breaking technologies (and AI is gaining a reputation of being such a technology) might bring about.

This tendency to trace the imaginaries of AI to the patterns of science fiction comes with no surprise. The books of the genre have provided inspiration for many technological developments that were considered fantasies at the time when the books were written (Bareis and Katzenbach 2022, 857). As noticed by Bory, "sci-fi movies and literature have frequently narrated the human–machine chess challenge in order to depict the future birth of a superior intelligent being" (Bory 2019). Clearly, as shown by the topics expressed in the prompt suggestions of Twitter users, the relationship between science fiction and previous technological developments continues to shape the imaginaries of the emergent field of generative AI.

Discord

Beloved Thread

In comparison to Midjourney's Twitter, the analysis of the Discord environment offers a way deeper and more comprehensive access to the actual community of prompters and their ways of communicating with the AI model. Here, the discussion is very organic and the discourse is fully user-directed. In the following paragraphs, I will analyze the combined collection of posts from 💡*PROMPT BUSTER - Share your secret 1 word or token phrase that drastically changes results!* and its continuation: *#💬Talk-💥WOP! (Words Of Power).* Both threads have been very enthusiastically received by the users. As figure 3 shows, comments like "This is a great thread" or "these [sic] thread is amazing" appear regularly. The comment "I think this is my favourite thread on the entire server" has received over 47 reactions in the form of the word "this" and an arrow pointing to the comment (signifying total agreement with the statement). In a community of little over 70 users, 47 upvotes are a convincing confirmation of the general enthusiasm about the content of the thread. One of the users, appreciating the thread as very helpful, interesting and creatively-stimulating, decided to create an image that would combine multiple power words they have learned from the Discord thread (see figure 4). The result of "key visual radiant light painted by Greg Rutkowski, Mabinogi and Ninokuni and Studio Ghibli, lens flare, gleampunk, epic wide shot" has gathered a combined number of 25 (exclusively positive) reactions—more than a third of the whole user base.

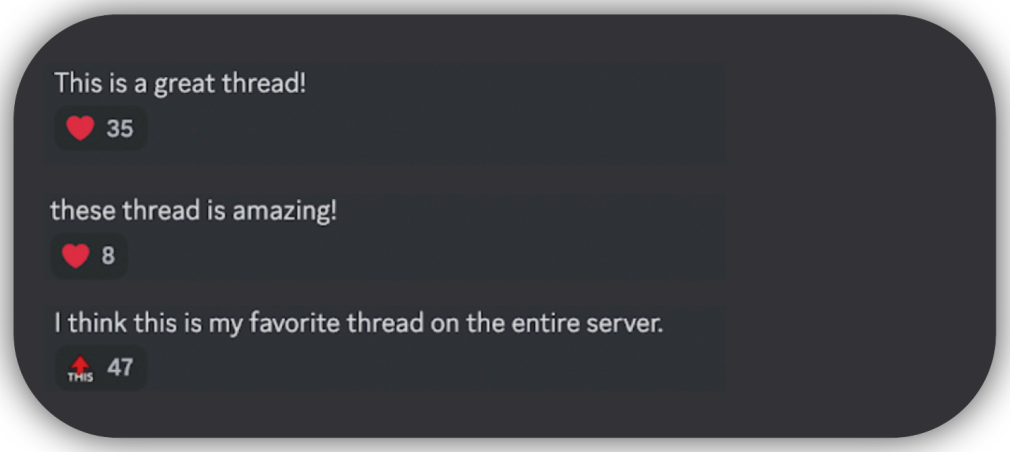


Figure 3. Positive Reactions of users to the *#💬Talk-💥WOP! (Words Of Power)* thread in the Midjourney Discord (Discord 2023).

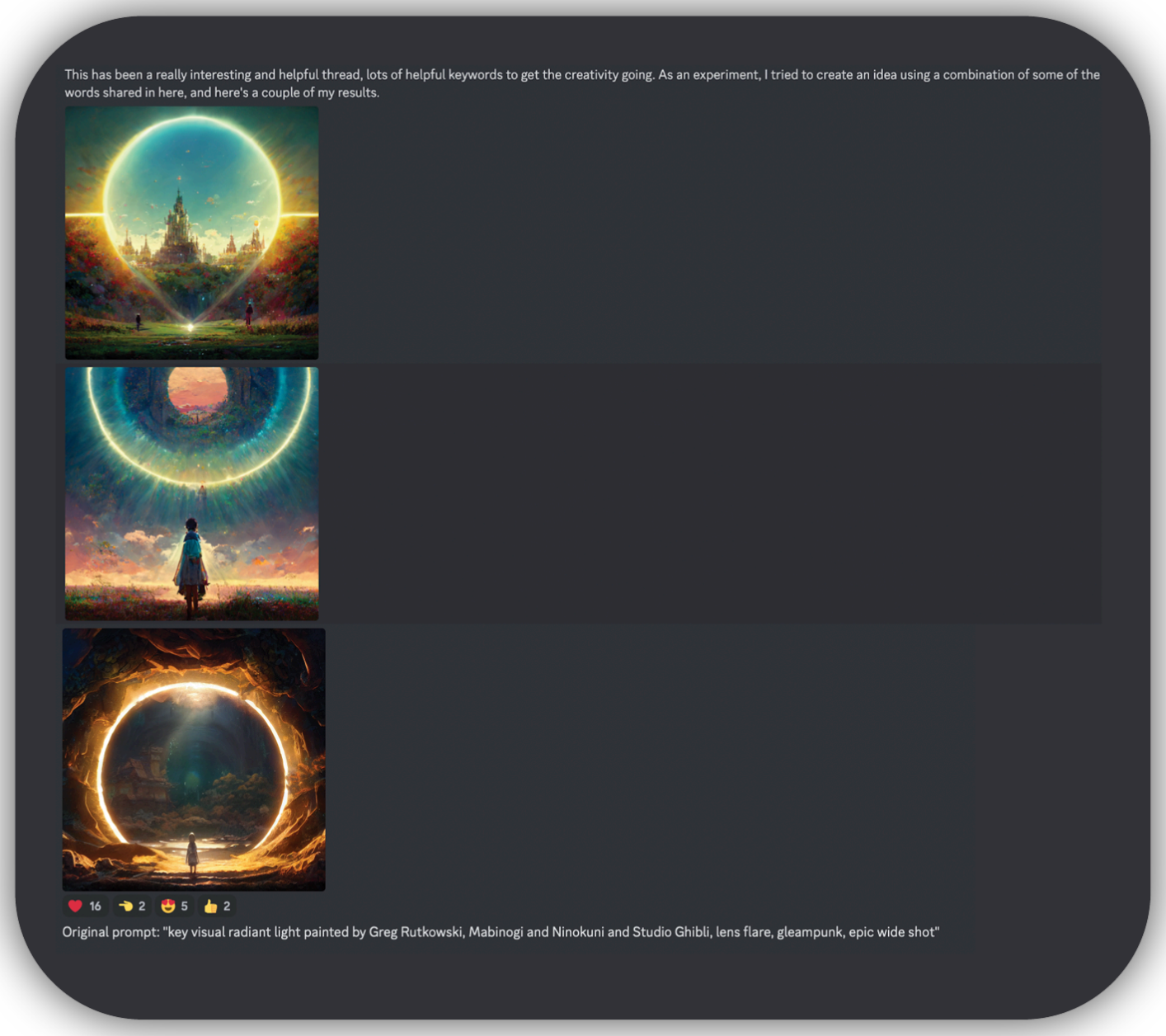


Figure 4. Visual results of one user's attempt at generating an image using multiple keywords found in the *#💬Talk-💥WOP! (Words Of Power)* thread (Discord 2023).

Prompting Goals

If prompt engineering can be seen as a method of fine-tuning the input in order to produce a desirable output, then understanding what the desires, or rather, goals of prompt engineers are, is one of the first steps towards contextualising their practice. According to Oppenlaedner, "Practitioners use modifiers to improve the resulting images and to exercise more control over the image creation process." (2022a, 9). But what does "improving" exactly mean for a prompter? What precise goals does crafting the prompts serve? Prompt engineering is very often done with the purpose of forcing the AI model to

create something visually closer to what the user has in mind—but there are also instances in which the user just tries to find ways for the AI model to react to a natural language prompt in a surprising way. General tendency seems to be oriented towards improving images in rather ambiguous ways: making them “juicier”, "epic”, “fancier” or “more awesome” (see table 2). Many users are looking to achieve pieces with a recognizable level of visual professionalism: “if you really want take your art to the next level of professional quality”, “instant professional finished piece” (table 2). There are also those who look for a specific artistic look (“high quality”, “extreme levels of detail”, “a more ‘realistic’ shading”) or a concrete emotional charge of their output: “rougher and blotchier”, “a cruder look” (table 2). From such descriptions of what kinds of improvements the recommended prompts can give, a certain image of a desired AI model emerges. In anthropomorphized terms, the AI is a visual creator who is able to weave both the technical skill and emotional awareness to create pieces of not only professional quality but also intense affective value.

An overview of different users’ prompting goals can be found in the following table:

Table 2. An overview of different prompting goals expressed by the users on the *#💬Talk-💥WOP! (Words Of Power)* thread (Discord 2023).

Ambiguous	Professional	Artistic Look	Emotional Charge
“More awesome”	“If you really want take your art to the next level of professional quality,”	“it seems to add some awesome textures”	“adds so much more emotion to the scene”
“High quality”	“ Instant professional finished piece.”	“a more "realistic" shading:”	“If you want a cruder look”
“it produces some neat colourful pictures”		“The resulting image is rougher and blotchier, but also more textured in a lot of ways.”	“The resulting image is rougher and blotchier, but also more textured in a lot of ways.”
“ to give that extra fancy effect”			“makes them vibrant and imo makes the image feel more alive”
“ It has landed me some pretty epic images”			
“it seems "ornate" is the biggest force multiplier for extreme levels of detail”			
“They make result so much juicier”			
“It makes everything awesome.”			
“can make some pretty cool stuff. “			
“some of the results just blow my mind.”			

Power and Magic

As shown in the relationship between the concepts of sociotechnical imaginary and algorithmic imaginary, the imaginaries produced by the companies and users often differ. However, in the context of Midjourney's generative technologies, there is a common element—that of human power. When searched for on Google, the Midjourney company presents itself as "an independent research lab exploring new mediums of thought and expanding the imaginative powers of the human species" (Midjourney, n.d.-a).

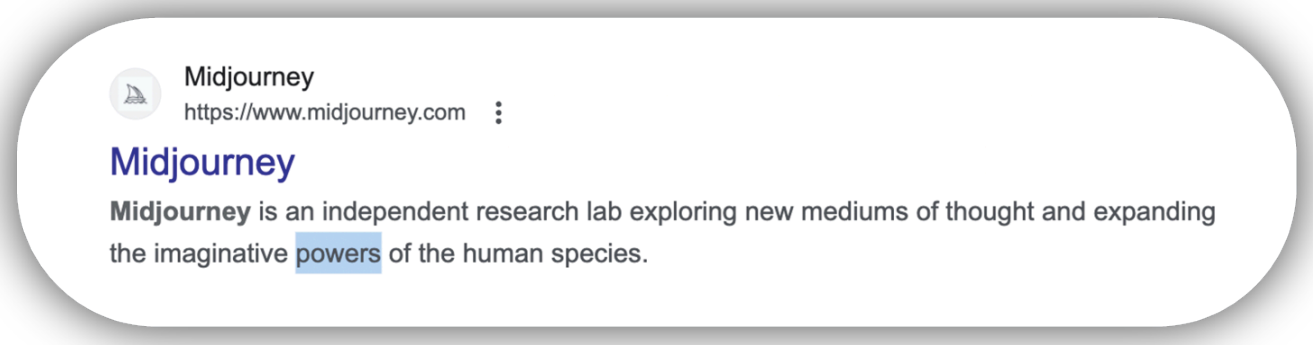


Figure 5. Results of the Google search of the word "Midjourney". The visible text is a preview of Midjourney's self-description on its homepage (Midjourney, n.d.-a).

It is a well-thought-out move on Midjourney's side. It is in the interest of the companies responsible for producing the technologies to advertise as being primarily oriented towards supporting humanity—specifically, its unique creative capacities. Such an approach puts forward a calming narrative of machines being a mere support to humans, not their full replacement. It not only minimizes the Promethean anxiety of the users but also allows the AI companies to thrive with little threat of regulation. If a technology is perceived as essentially helping humanity, it becomes a way less pressing issue for the regulators to look into.

Prompting consciously, in an attempt to direct the model towards one's desires, is the strongest expression of a user trying to exercise control over a generative model (Oppenlaedner 2022, 8). Reynolds and McDowell argue that the essence of prompt engineering is constraining the behaviour of the AI model. In its infinite versatility, the model cannot manage the "contextual ambiguity" (Reynolds and McDowell 2021, 6) and the best way to solve the problem is to block off alternative options "so that the AI pursues only the human operator's 'desired continuation'" (Harwell 2023). The discourse of power continues in interviews with professional prompt engineers. Drew Harwell starts his Washington Post piece on the emerging profession of a prompter in the following way:

> *"When Riley Goodside starts talking with the artificial-intelligence system GPT-3, he likes to first establish his dominance. It's a very good tool, he tells it, but it's not perfect, and it needs to obey whatever he says."* (Harwell 2023)

Asserting dominance by the human users against the AI seems like a desperate move towards keeping the Promethean anxiety at bay—at the end of the day, we, humans, are still in control. Maintaining the power dynamic of human superiority is a task so crucial, that the most skilled (or most frequent) Midjourney users are referred to as "power users" (SpyScape, n.d.). Although the term has existed in a digital vernacular for a while (as referring to users that have impressive fluency in particular software), in the era of generative technologies, it has gained a new, more serious meaning. As claimed by Ben Stokes, founder of the prompting marketplace PromptBase, "People who write prompts well will have such a leverage over the people that can't. They'll essentially just have superpowers." (Harwell 2023).

And superpowers don't sit far away from a central piece of a more mythical discourse of power: magic. When scrolling through the *#prompt-chat* (a key room of prompt discussion, which includes the *WOP* thread), the reactions of users comparing the Midjourney software to magic are very frequent (see figure 6). Awe-filled beginner prompters, ask the advanced power users to "share their magic" (figure 6). Seeing the output produced with an improved prompt, some wonder "what kind of black magic is this" (figure 6), while others, trying out the updated versions of the software, claim that its individual functionalities, like weighing (assigning weight to certain prompts so that their presence in the final output increases) are "magical" (figure 6).

The discourse characterized by notions of power and magic is as visible in the *PROMPT BUSTER* and *WOP* threads, as it is in the general *#prompt-chat*. More interestingly, as the prompting keywords were moved from *PROMPT BUSTER* to a new thread titled *"*Words Of *Power"*, the discourse of power gained titular significance. And with power, magic followed.

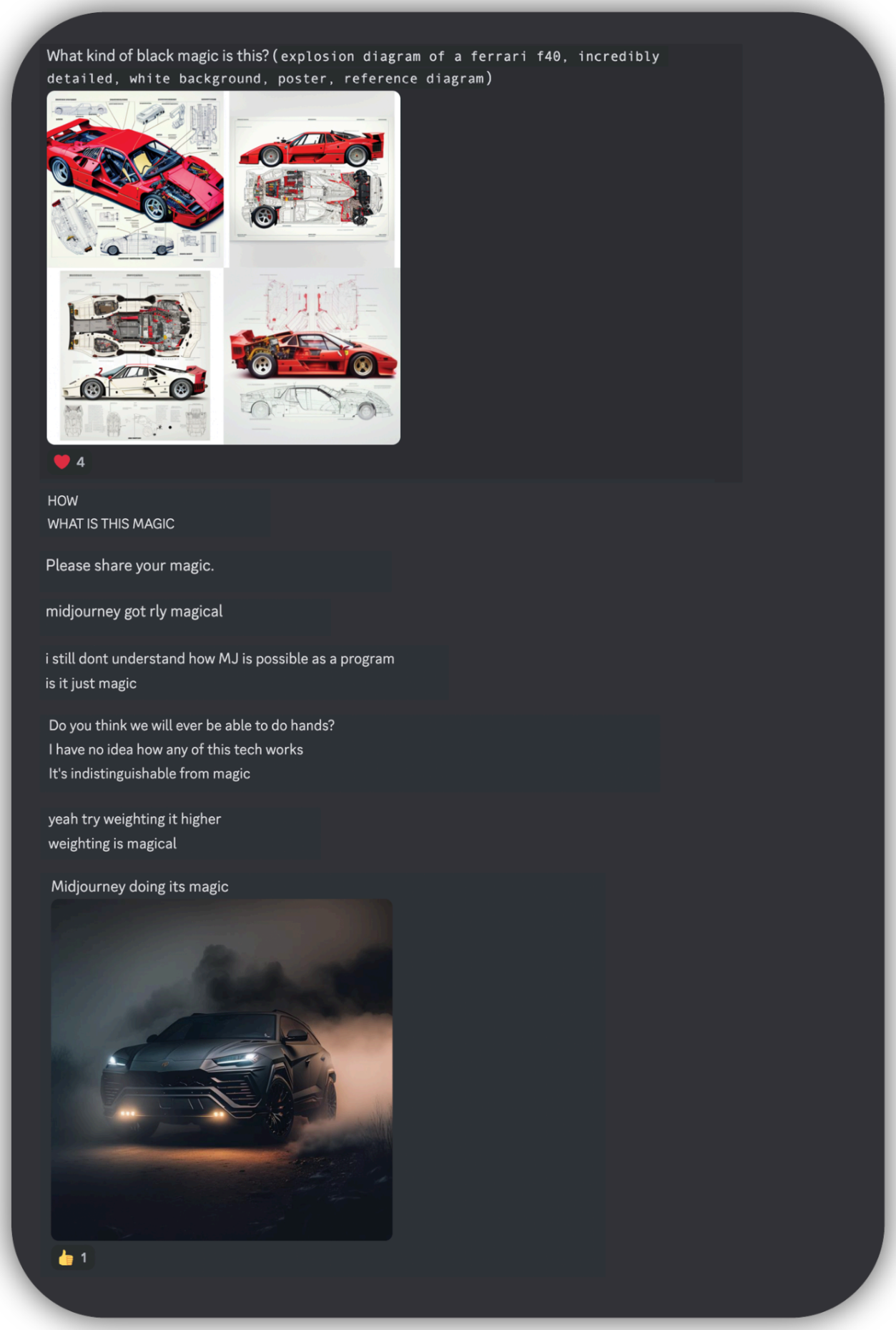


Figure 6. Midjourney's users comparing the results output by the software to magic (Discord 2023).

One prompter who shared a particularly appreciated prompting phrase (gaining a massive number of 62 positive reactions), recommended using shot descriptions of “through” and “over”, and has been called a “wizard” by another user (see figure 7). An emoji of a magician’s wand was also added to the reaction. Such rhetorical choices are common beyond the Discord environment. Simon Willison, a British programmer who has studied prompt engineering, compared it to “casting spells” (Harwell 2023). Acknowledging the complexity of generative latent spaces, he added that “like in fictional magic, nobody understands how the spells work” (Harwell 2023). Interestingly, the whole metaphor was an attempt to defend prompting from those who belittle the practice as “getting paid for typing things into a box” (Harwell 2023). Willison, experienced in human-computer interaction, points to inherent imperfections of AI models—what the tech industry started problematically calling “hallucinating” (Klein 2023). As noticed by Willison (in very anthropomorphic terms), AI models “lie to you. They mislead you. They pull you down false paths to waste time on things that don’t work” (Harwell 2023). Such deceitful aspects of generative technologies can be seen as the central reason for why skilled prompt engineers are desperately needed. According to Willison, there is a real danger in not knowing the correct “prompt-spells”—”if you mispronounce them, demons come to eat you” (Harwell 2023).

Figure 7. A prompter receiving praise from another user after sharing their results of prompting the Midjourney model with different shot descriptions (Discord 2023).

The examples of magical discourse in the Discord thread continue. As shown in figure 8, one user, who has shared a link to an external prompting guide, together with a long set of prompting keywords extracted from it, called it a "list of potential MJ alchemy words". Here, an emoji of a unicorn was added.

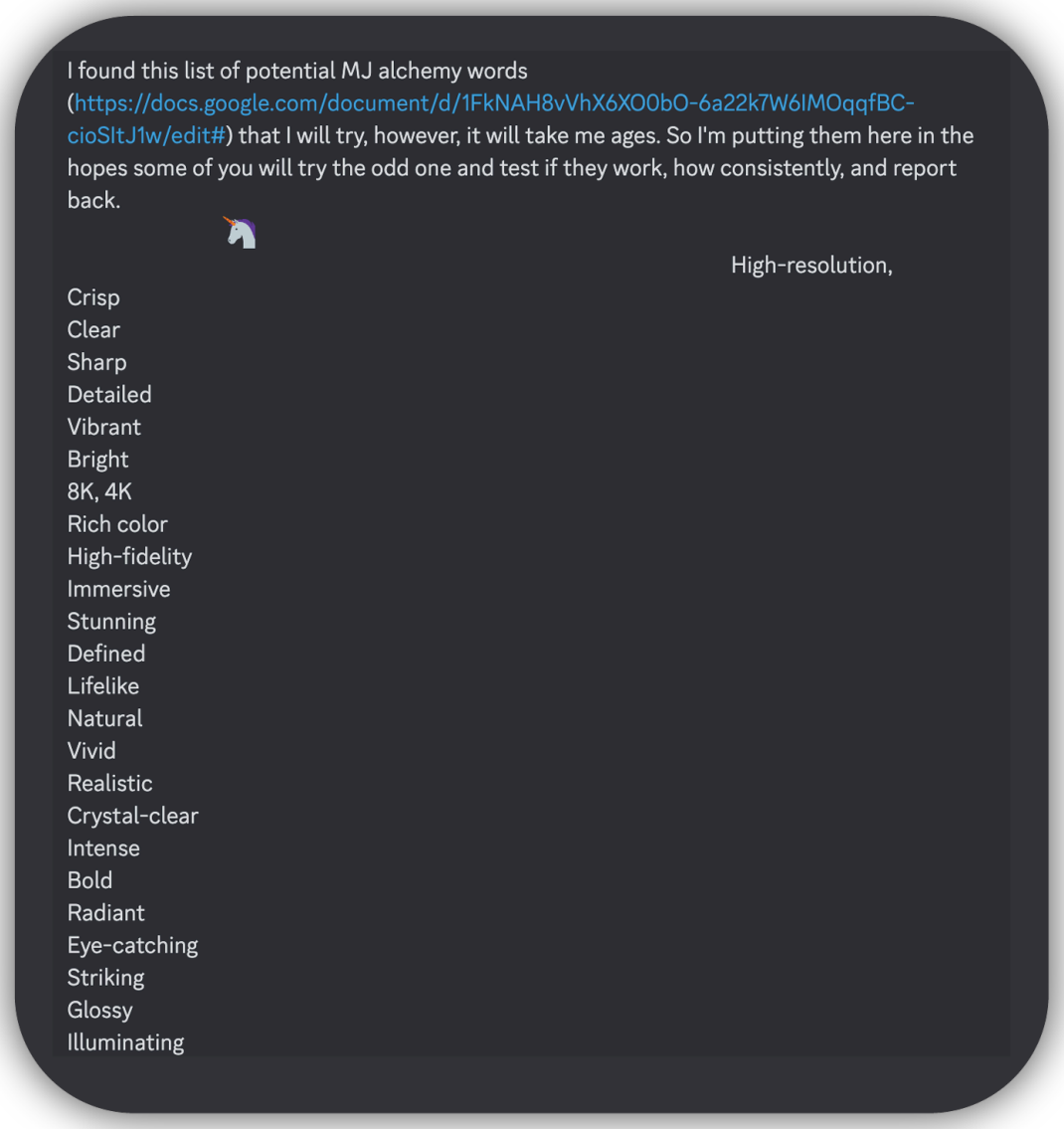


Figure 8. A user sharing a list of "alchemy words" (Discord 2023).

As can be seen in figure 9, another user, reacting to a post sharing the power words "gossamer" and "wafting", appreciated them as prompts that give the user the power over ineffability and the capacity to create a desired "vibe". According to the user, the words help to "depict the idea of 'atmosphere' which is actually invisible." In this example, the concept of invisibility, a typical element of the magical world, is called in and one's power to command it with an appropriate prompt is celebrated.

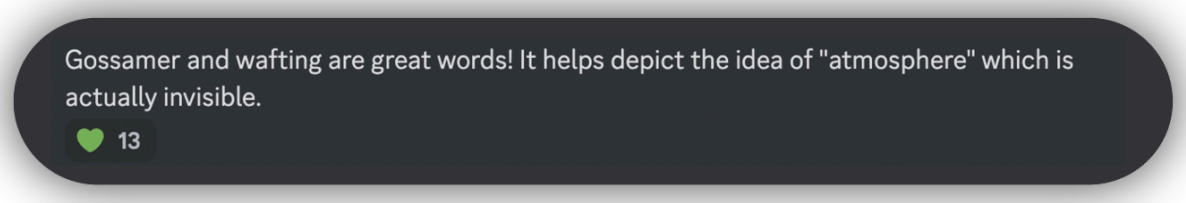


Figure 9. A user claiming that the keywords of "gossamer" and "wafting" are capable of conjuring a specific atmosphere (Discord 2023).

Another user, possibly experiencing a subliminal feeling of awe after seeing the effect of using the keyword of "sparkly", started questioning what is real and what isn't when it comes to experiencing the power of prompts—"So this might be psychosomatic but I'm adding it to other prompts (even ones where there's nothing to 'sparkle') and it seems to be increasing detail…" (see figure 10). Not only does such a reaction question the power of prompts, or rather, how much actual control they give to the user (essentially comparing them to a placebo), but, perhaps more importantly, the comment points to frameworks of the Lovelace effect by noticing the importance of the perception of the user as a crucial constitutive element of evaluation of artistic quality (even in the context of "increased detail" which seems to be more objective mark than for example "more beautiful").

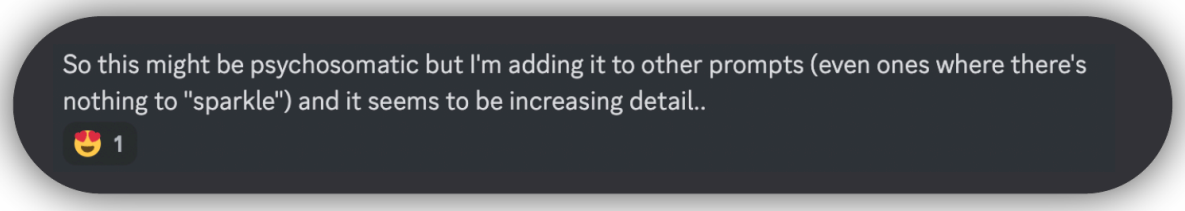


Figure 10. A user expressing his suspicion that his belief in prompts' efficacy might be psychosomatic (Discord 2023).

Magical discourses appear not only in the reactions to the Midjourney's model but also among the prompted words. If one searches for the word "magic" on the Midjourney Discord, almost 3 million results are returned. "wizard" gives 492,862 results, "spell" 225,370 results and alchemy 90,661 (for context, the word "house" gives 1,383,716 results, the word "mountain" 1,584,233, and "heart" 642,671). Because such words are quite popular, they do not appear in the *WOP* thread recommendations—it will be of little surprise even to beginners that the word "magic" adds a certain visual value to the output. However, what becomes clear is that just as was the case with the themes of science fiction in the previously discussed replies to Midjourney's tweet, the topic of magic circulates and permeates the discussion becoming both an expression and a source of a prompted imaginary.

Oppenlaedner notices the power of relying on magical discourse in one's prompting ventures: "Magic terms [...] introduce an element of unpredictability and surprise to the resulting images, often with the intention of increasing the variation in the output" (Oppenlaedner 2022a, 8). As an example of a prompter using such methods, Oppenlaedner talks about Twitter user @jd_pressman, who "added the magic term 'control the soul' to the prompt 'orchestra conductor leading a chorus of sound wave audio waveforms swirling around him on the orchestral stage'" (Oppenlaedner 2022a, 8). According to @jd_pressman, the goal of adding the prompt was forcing the model to produce "more magic, more wizard-ish imagery" (Oppenlaedner 2022a, 8).

One of the most interesting aspects of the relationship between the (magical) AI imaginary and the user is the role of software understanding. One of the pieces of advice given on the *WOP* thread was "using key visual instead of 'art' or 'illustration'" (see appendix, table 3). The phrase "key visual" is an expression of expertise in an artistic vernacular. Knowing that an art director or a similar professional working in the creative field would refer to an image in a more specific way than "art" or "illustration" allows the user to force the model into outputting an "instant professional finished piece." One user commented that the prompt worked "like a magic trick. Once you know the prompt you stop being fascinated by the output" (see figure 11) It is important to observe the switch from "magic" to a "magic trick". "Magic" is transcendent, a "magic trick" is a performed gimmick. A knowledgeable, experienced user becomes disillusioned with the "magic" of the AI generator and is able to peek into the Mechanical Turk (Pasquinelli and Joler 2021, 1279) and see its operator—the secrets to seemingly magical outputs reveal themselves as simply skillful use of the right vernacular.

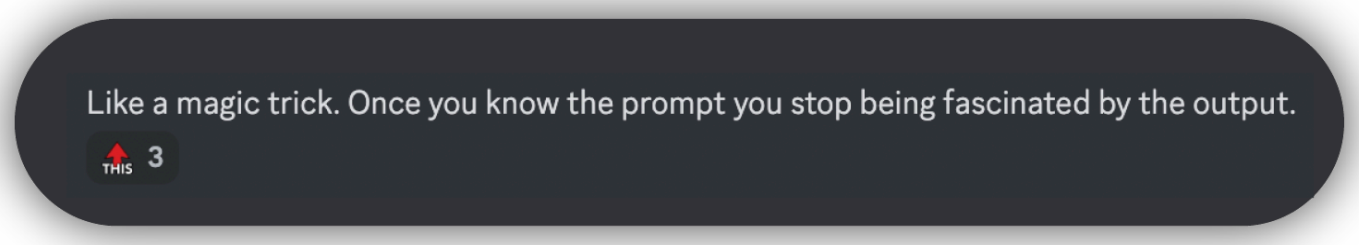


Figure 11. A user responding to the prompt of "key visual", comparing the knowledge of relevant prompts to the knowledge of a magician performing a magic trick (Discord 2023).

Anthropomorphism

Anthropomorphizing the AI models is a frequent practice. The very fact that AI is deemed “creative” or “intelligent” positions it very close to what was once deemed uniquely human. Riley Goodside, a professional prompt engineer, claims that “the prompt engineer should be instilling in the AI a kind of ‘persona’—a specific character capable of winnowing down hundreds of billions of potential solutions and identifying the right response” (Harwell 2023). Such anthropomorphism is supposed to ensure clarity and better, more human-like communication with the model.

The way AI is spoken of in the Midjourney Discord also tends to assume some form of agency or even self-understanding of the model. Oftentimes, different versions of the Midjourney software tend to be spoken of as having distinct personas with different characteristics. For example, “V4 has the desire to bring realism to output by adding depth, shadows and 3D effects” (see appendix, table 3). In order to counter that “very beautiful [but] undesired for painterly styles” feature, the prompters are advised to use the prompt of “-- no render, 3D (or giving them a negative weight).” Pointing to a similar default “desire” of Midjourney software, one user, showing a good understanding of the AI’s dataset, claimed that generally, the AI model will rely on the rule of thirds “on its own because a lot of the images it was trained on use the rule of thirds already” (see appendix, table 3). However, adding the rule of thirds as an explicit part of a prompt “can ensure more pleasing-looking results”. The model has its own agency that the user can either try to counter or support.

Midjourney has certain shortcomings but acts on them in surprising ways. A good example is presented in figure 12. One prompter has used the word “poro” and explained that ”A poro is a cute fantasy creature that is basically a sphere of fur with feet. Midjourney knows what a poro [is] but its concept is a little vague, if you just prompt ‘poro’ it'll randomly assign them sheep traits, pig traits, bunny traits, really anything white and fuzzy.” However, as the prompter argues, “you can take advantage of this vague concept to deliberately sponge up prompts.” The user claims that because of that uncertainty of the meaning of the word, “the concepts from the rest of your image will bleed into it.”

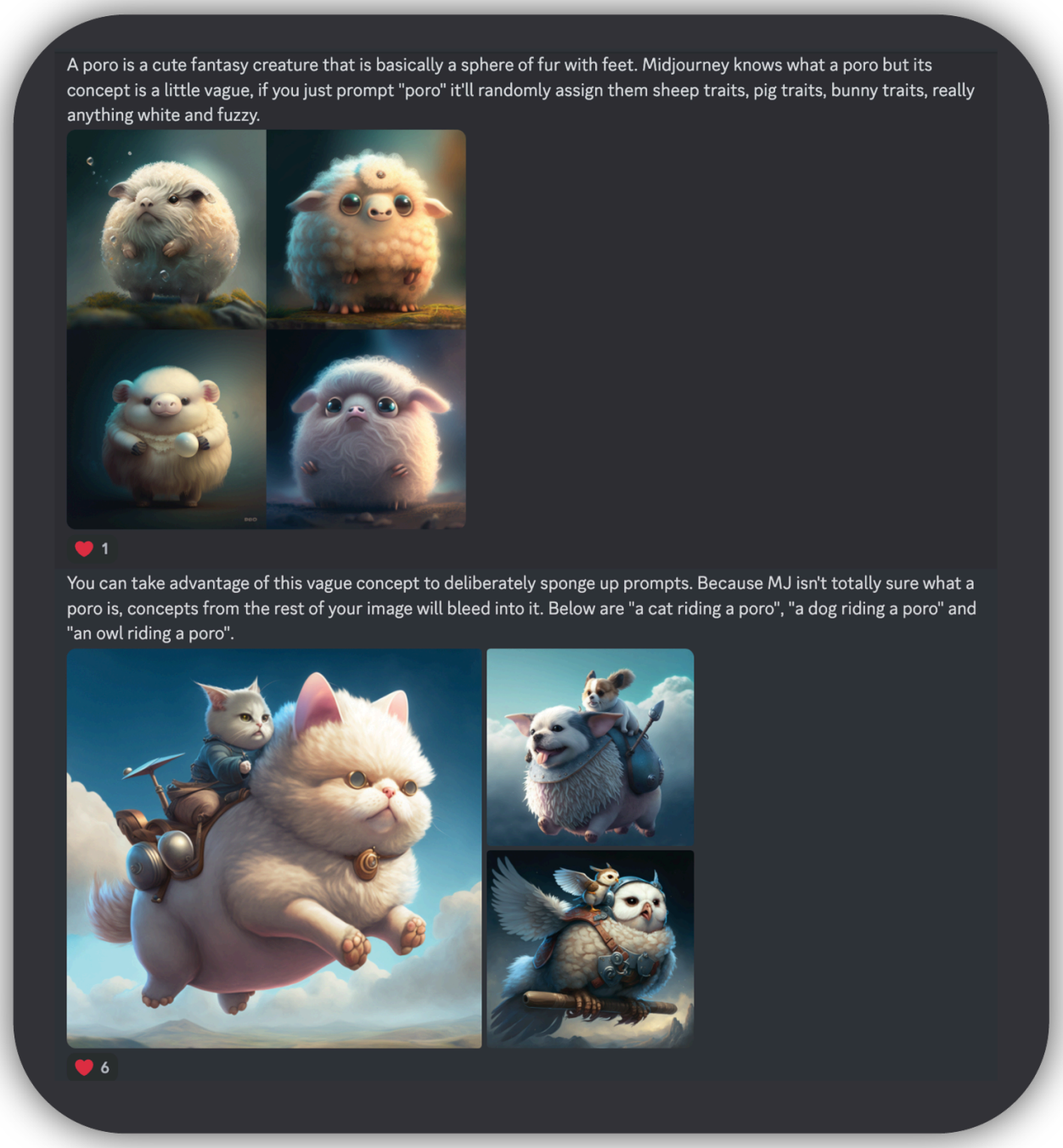


Figure 12. A user sharing the prompt “poro” and explaining how it can be utilized (Discord 2023).

Another user, noticed that “Midjourney is really bad at doing Stargates as seen in the sci-fi classic Stargate SG-1” (see figure 13). They are convinced that “for some reason its concept is contaminated by a lot of unrelated sci-fi imagery” (which would make sense considering how much the users of Twitter were interested in Midjourney creating sci-fi related imagery even before the model was released). The user advises introducing a simple change in the prompt: from “a Stargate” to “a Stargate --no Halo". That, according to them “makes a world of difference” and “suddenly the generator knows exactly what you're talking about.”

Figure 13. A user speaking about Midjourney's software in anthropomorphic terms. (Discord 2023).

The instances of the generator "having a desire", "doing things on its own", "knowing" a concept or "knowing what you're talking about" point to it having a human-like comprehension and even emotional capacity in a form of a "desire". Users seem to imagine the software not as an algorithm, but as a collaborator, possibly an apprentice that in its works needs to be guided by a human (the creative conceptual master). As noticed by O'Gieblyn in her analysis of the powers of metaphors, such a move towards assigning human actions to the unconscious workings of a machine was a gradual, but currently widely accepted development even in a professional setting:

> *"As we increasingly come to speak of our minds as computers, computers are now granted the status of minds. In many sectors of artificial intelligence, terminology that was once couched in quotation marks when applied to machines—"behavior," "memory," "thinking"—are now taken as straightforward descriptions of their functions. Researchers say that neural networks are learning, that facial recognition software can see, that their machines understand."* (O'Gieblyn 2021, 27)

In general, the "perception of agency on the part of the model" (Ploin et al. 2022) is considered to diminish with technical understanding. Magic turns into a mere magic trick. It can be theorised that the more amateurish the user, the more naively they consider the model as an agency-filled (potentially magical) machine. However, even with the technical understanding of the most advanced engineers, the

rhetoric of anthropomorphism remains and subconsciously shapes the perception of the technology as possibly something more than a technology.

In Taina Bucher's analysis of Facebook algorithms and the algorithmic imaginary emerging from it, she noticed that the users became aware of the generally hidden algorithm only when "the algorithm did something to upset them, throw people off guard or frustrate" (Bucher 2017, 35). Algorithms working in a strange way or diverting from users' expectations point attention to their inner workings. Even though algorithms analysed by Bucher were of a different variety, a similar dynamic of reaction to algorithmic misbehaviour can be seen in the case of generative models.

One example can be seen in a discussion following one prompter's recommendation of abandoning "portrait" or "full body" prompts and switching to "T-Posing" (see figure 14). The prompter achieved great results with the prompt, but another user claimed that in response to him using the same prompt, Midjourney "seems to think everything is a giant inflatable air dancer". Both users are surprised by how big the difference in their results is. They try to solve the "mystery" by focusing on neighbouring prompts in the second user's attempt. After finding the word "king" they wonder whether the model "is using the 't-posing jesus' meme as reference" or whether "the Rio Jesus" might have something to do with the output. Finally, the users noticed that the prompts of a "man T-Posing" and a "woman T-Posing" are "unusually abstract" and that it is uncertain "where [Midjourney] is getting the style from."

Figure 14. Users discussing why they might have received very different results after having prompted the Midjourney model with the same prompt of "T-posing" (Discord 2023).

In another conversation, captured in figure 15, a user noticed that the model picks up on the prompts they used in the past and that the model was blending in the elements "learned" from the past requests. Another user asserted that "this thing learns too much" and that "there needs to be a wipe clean slate button" (which would make the model "forget" everything that the user has prompted for beforehand). Although Midjourney is explicitly called a "thing" here, it seems to be imbued with some sense of agency—and perhaps fearsome capacity, as its levels of understanding are reaching a worrying level.

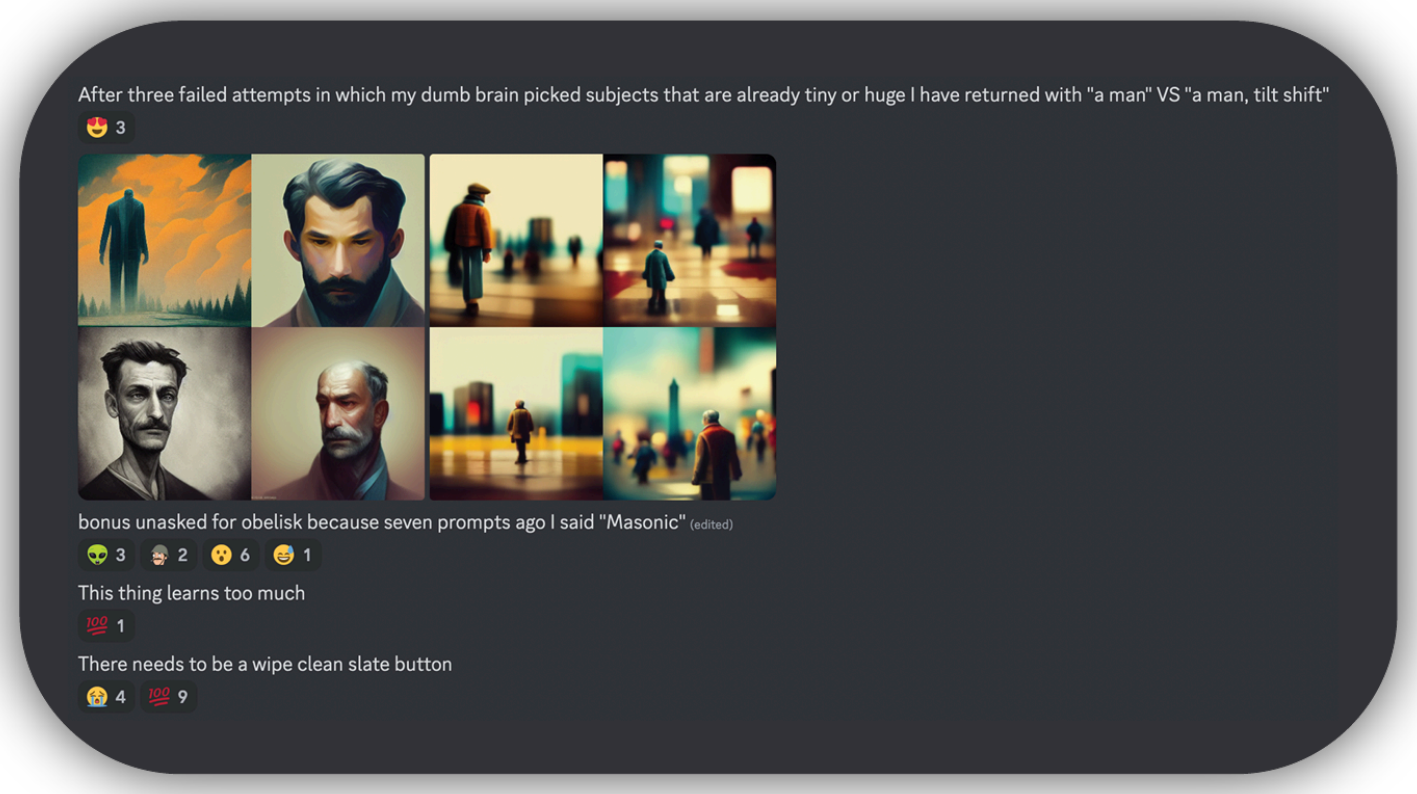


Figure 15. After one prompter has shared the keyword "tilt shift", the users express uncertainty about what the Midjourney software remembers and whether there should be a new "wipe clean slate button" function added (Discord 2023).

If humanity anthropomorphizes our technologies out of fear of its powers, the anthropologist Stewart Guthrie has a theory for the reasons behind that. He argues that "our tendency to anthropomorphize is an evolutionary strategy" (O'Gieblyn 2021, 16). As explained by O'Gieblyn, our perception is guided by metaphors, and "Whenever we are faced with a novel object, we immediately infer what kind of thing it is by comparing it to our store of preexisting models. And as it turns out, one of our oldest and most reliable models is the human" (O'Gieblyn 2021, 16). O'Gieblyn illustrates the theory with the following example:

> *"If you are walking through the woods and catch a glimpse of a large dark mass, guessing that it's a bear comes with a better survival payoff than guessing that it's a boulder. Even safer to assume it's another person, who could be more dangerous—particularly if wielding weapons. Things that are animate are more important to our survival than things that are inanimate, and other humans are the most important of all. Thus natural selection rewards those who, when confronted with an uncertain object, "bet high," guessing that the object is not only alive but human. All of us have inherited this perceptual schema, and our tendency to overimbue objects with personhood is its unfortunate side effect. We are constantly, obsessively, enchanting the world with life it does not possess."* (O'Gieblyn 2021, 16)

If Guthrie is correct, we might be giving human-like traits to advanced AI technologies as a form of future-proofing and self-protection. We make ourselves aware of the possible dangers of the technology by considering it our equal, ready to attack. Calling AI practice of nonsense-spewing "hallucinations", makes us wary of its shortcomings, seeing it as something not to be fully trusted. According to Goodside, AI (much like a human), "overestimates its abilities and confidently gets things wrong" (Harwell 2023). If AI is like a human, then like a human it can be wrong. And, like a human, it can turn against anyone.

Productive Misinterpretation

Some claim that the misunderstandings of AI are the key proof for it not being human-like. Jessica Rumbelow, a researcher of the machine-learning group SERI-MATS, claims that the AI systems are "very convincing, but when they fail, they fail in very unexpected ways — nothing like a human would fail" (Harwell 2023). Invoking an enchanted view of the technology, she asserts that, "crafting prompts and working with language AI systems [...] sometimes felt like 'studying an alien intelligence'" (Harwell 2023). It is difficult to judge which approach is more dangerous—seeing AI as human-like or alien-like (or deity-like). Scholars such as Kate Crawford (2021), Naomi Klein (2023), or Timnit Gebru (Merchant 2023) offer excellent critical perspectives on the matter. What is interesting in the context of generative AI, however, is that its shortcomings in understanding (signifying not being human-like) can be appreciated in the context of AI as an artistic tool. The productive misinterpretation can be seen as a unique artistic potential of machine failure (Ploin et al. 2022). Exploiting the "cognitive gap" (Pasquinelli and Joler 2021, 1277) between human and computer vision can be very beneficial for the artistic collaboration between embodied and statistical intelligence. It can allow for serendipity, unexpected discovery and outputs that allow for reducing the design fixation (Youmans and Arciszewski 2014)—excessive focus on using the tools to produce *exactly* (with borderline neurotic exactitude) what the maker has in mind. Through a surprising machine misunderstanding, a user can be inspired to change their course of action.

Some Midjourney Discord users even observed the advantages of an occasional misspelling in communicating with the model. One user, asking whether another prompter has misspelled "shiebox", while actually having "shoebox" in mind, has immediately asserted that they are not trying to correct anyone's grammar but have simply noticed that AI sometimes works even better when prompted with misspelled words (see figure 16).

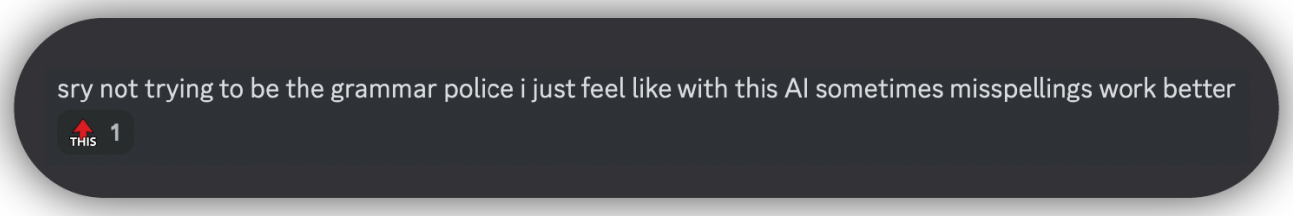


Figure 16. A Discord user sharing his experience of misspellings working well as prompts (Discord 2023).

Another user, wanting to prompt for “coffin dance”, accidentally typed in “coffic dance” (see figure 17). Even though “coffic dance” does not seem to be an existing phenomenon, somehow Midjourney returned fruitful results. According to the author of the misspelling, “I learned you can use that term on many subjects from people to animals (cats, dolphins, turtles), and it will make them elaborately dance with dynamic poses and swirls.” They claim that “coffic dance” is “a real WOP if you're trying to accomplish that aesthetic and it seems strong enough to keep the aesthetic even if you start adding lots of other keywords.“ Another enthusiastic user called the misspelling “a shining example of a happy accident.”

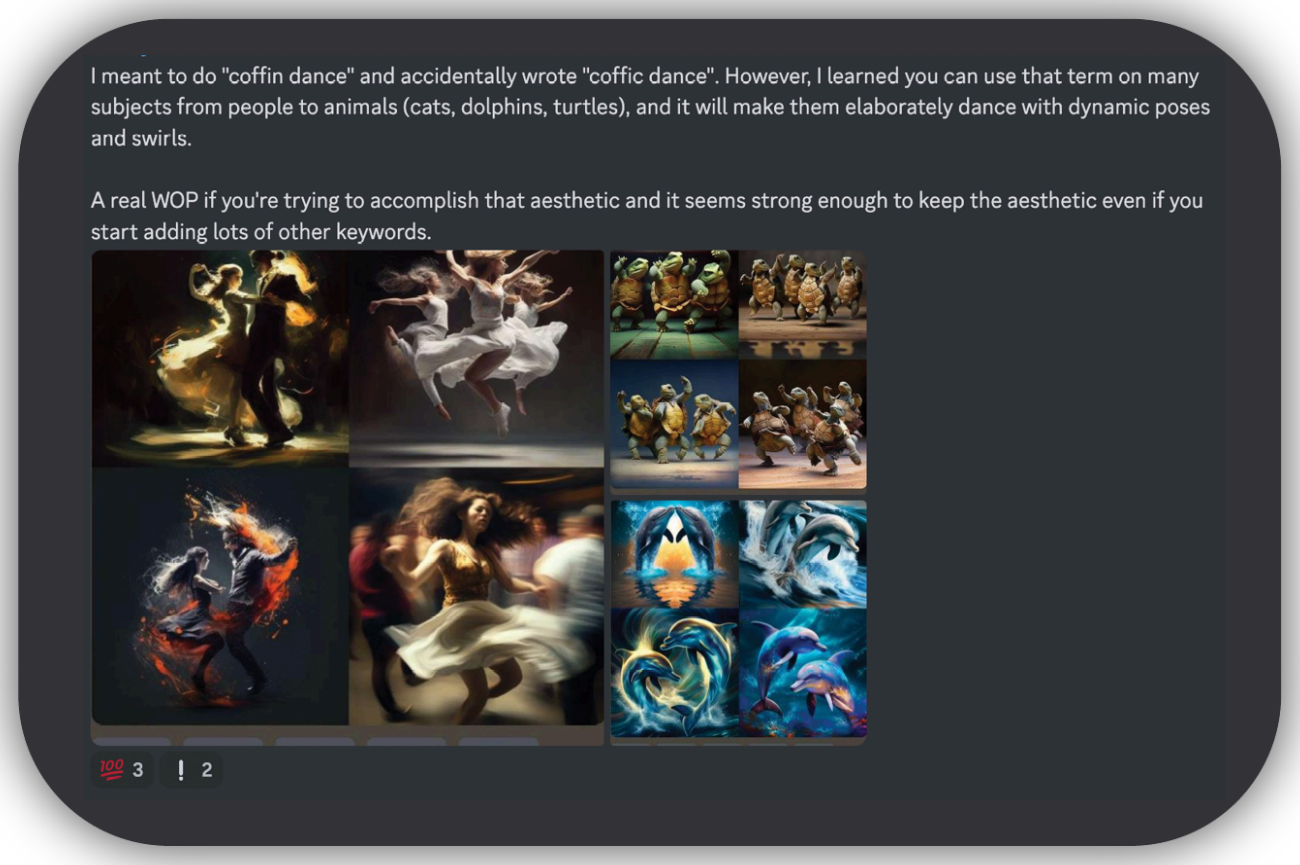


Figure 17. A prompter sharing the phrase of “coffic dance” on the Midjourney Discord (Discord 2023).

In their 2022 paper, Rassin et al. observed that DALL·E does not deal well with homonyms. Even though DALL·E differs from the main case study of this thesis (Midjourney), it is highly possible that both software have (or at some point had) similar issues. When prompted with words such as “bat” DALL·E returned an output containing both the tool and an animal. “Seal” presented the creature and a sealed letter. “Jam” showed a man eating the condiment while stuck in city traffic. Such a way of understanding visual reality is “in stark contrast to the way humans process language” (Rassin et al. 2022, 1). As observed by the scholars, DALL·E 2 “does not follow the constraint that each word has a single role in the interpretation, and sometimes re-uses the same symbol for different purposes." (Rassin et al. 2022, 1). Even though the generative models are constantly going through updates which are meant to shift their understanding gradually closer to the human ways of comprehension and expression, Erik Carter argues that “unpredictability is the key to the tool’s power.” He notices that “the robots are able to make connections between forms that our minds are unable to make, creating new formal relations between unrelated subjects and aesthetics" (Carter 2022). The benefits of machines understanding the world in different ways than humans puts the ongoing effort to push the AI technologies towards AGI into a questionable position. Perhaps, leaving the models underdeveloped in some ways, would prove to be more beneficial to the community using them—the technology would remain a tool that can be corrected and not be elevated to the status of an autonomous replacement for a human agent.

True Powers: Knowledge and Language

So far, I have analyzed the perceptions of users over different behaviours of AI, especially in moments of interaction with a prompt. I have looked at how the community exists in a contradiction of comparing the technology to a human and simultaneously assigning it superhuman, alien or even magical powers. What still remains to be investigated is what types of prompts, and hence what types of expertise of the prompters, are deemed productive by the user base. Basing my analysis on the shared “words of power” and comments of the Discord users, I have identified three key skills that the community seems to ascribe to a successful prompting practitioner: command of the art world vernacular, dataset awareness and the ability to use language creatively.

The importance of a wide artistic vocabulary in crafting prompts was observed by Ben Stokes. He calls prompt engineers “multidisciplinary super-creators” and confirms that there is an unquestionable difference in the skills of experienced prompters and amateurs. According to him “The best creations [...] rely on humans’ specialized knowledge from fields such as art history and graphic design. His

examples include “captured on 35mm film”, “Persian architecture in Isfahan” and “in the style of Henri de Toulouse-Lautrec" (Harwell 2023). While using a modifier of a well-known painter (such as Toulouse-Lautrec) can be considered a rather basic and uncreative prompt, a variety of a much more technical terminology is deemed by the prompting community as being able to bring out a next-level prompt quality. Prompts such as “vaporwave”, “xerox art”, “ms paint”, “linocut”, “chiaroscuro” or “medieval woodcut” (see appendix, table 3) show recognition of both traditional and modern techniques and aesthetics. Phrases such as “shoebox diorama” or “wispy soft roving wool watercolor” (see appendix, table 3) signify a possible crafting background. It might also include using the prompter’s knowledge of existing artists but with a smarter, more context-specific approach. Instead of applying a style transfer of “by Van Gogh” onto the output, a prompter can, for example, help the model in creating good images of a crowd with a modifier “by Dan Witz” (see appendix, table 3), as painting crowds is the artist’s speciality. In such a context, the artist becomes less of a naive filter-like style modifier replicating colour palettes or brush strokes, and more of an effable and productive direction for the AI system.

Prompters can also benefit from using more advanced artistic jargon, which gives them the capacity of translating what might be ineffable to a less experienced viewer and user (who with a limited vocabulary only sees a satisfying image but has no capacity to describe the elements that make that image satisfying) into concrete terminologies of lights, lenses and techniques. Most photographers would say that correct light is the key component in achieving the right atmosphere in a picture. That seems to also be recognized by the prompting community, as multiple light-oriented prompts are provided: “morning light or dusk”, “waning light”, “radiant light”, “lens flare and godrays”, “limned light” (see appendix, table 3). Many of the prompts come with an explanation. According to one user, “limned” produces “that lovely halo-ish effect from back/side lighting.” Another claims that “morning light or dusk” is supposed to give a softer effect of low sun angles “without the extremes of sunrise/sunset”. A commenter provides more context: “Morning light and dusk are good ones! Pro photographers like to shoot with morning light because it is usually the cleanest, clearest of the day. Dusk also has a softer feel than the rest of the day.”

Other keywords that were deemed helpful in making a piece more professional are “vector” (gives “flat coloured result”), “render” (“more realistic shading”), “flat icon”, “key visual” (in place of "art" or "illustration"), “model sheets" and "orthographic view sheet“ (see appendix, table 3). As prompters’ experiences indicate, such phrases direct the model towards producing a professional output because the provided keywords suggest professional rhetoric.

Some users also recommend referring to specific types of composition and framing of the dynamics in the image: “tilt shift”, “Rule of Thirds”, shot descriptions such as “through” and “over”, “T-Posing”, “vertical splitscreen”, “negative space” and even “Background, Foreground” (see appendix, table 3) are all terms taken from a lexicon of design professionals—which makes the outputs produced by the models trained on the datasets of their work and vernacular so similar to the actual outputs of the professionals working with the terminology.

Interestingly, as shown in figure 18, users themselves also recognize the importance of artistic knowledge in crafting prompts—“I am amazed at how much art history and theory I am learning trying to craft new and interesting prompts” says one user. “Art history was good for something!” exclaims another. Yet another prompter notices an interesting irony inherent in how artistic education has for generations been considered useless or at the very least inferior to more scientific career choices: “Wouldn't that be ironic? People tell you that you wasted money on a fancy art degree and then it becomes as crucial as computer coding.”

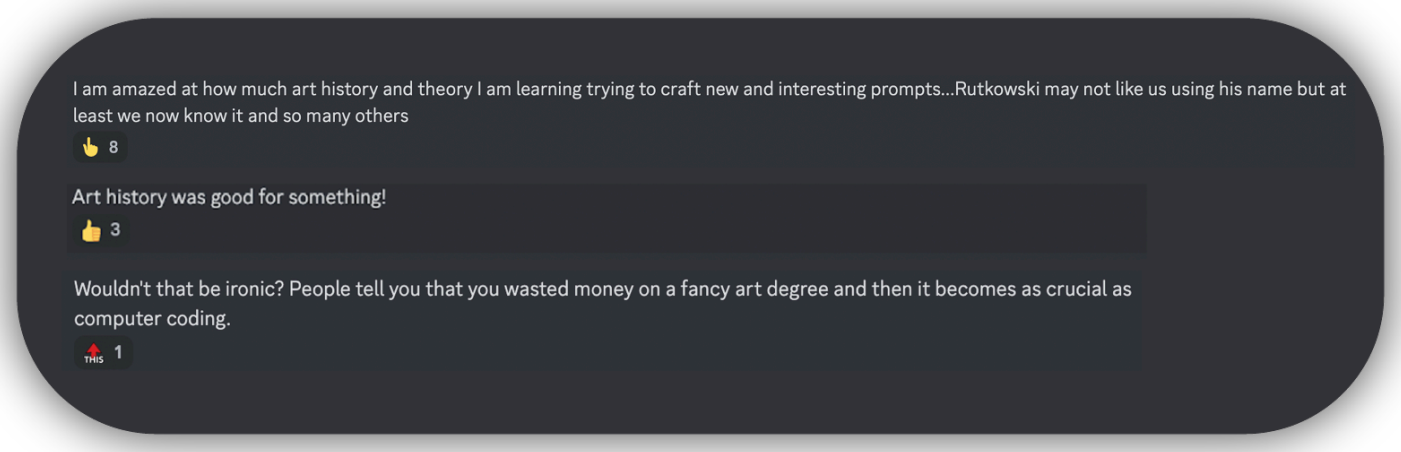


Figure 18. Discord users considering the usefulness of art education in the context of prompting practices (Discord 2023).

Even though it may seem that such a pro-vocabulary would be used by prompters who in their professional life are designers or photographers, that is not necessarily true. The arrival of generative AI means that one no longer has to know how to make a certain effect. All she has to know is how such an effect would be called. A real-life photographer would need to know the exact time at which the dusk light would hit the perfect location. After getting there she would have very limited time to capture what she needs to capture. Additionally, she can never be certain that the light will not be covered by clouds and has no choice over from which direction the sun would rise. A prompt engineer has almost complete control over all these parameters.

And despite a growing appreciation for art degrees, they might not be the only path towards reaching the art jargon proficiency. Under AI there is one incredibly important thing to know—the dataset. As observed by Oppenlaedner, "Writing effective prompts is a skill linked to a person's knowledge of the training set and the neural networks' latent space, but also the person's knowledge of and experience with different prompt modifiers" (Oppenlaedner 2022b, 6). Enough time spent with generative models and their datasets might produce a sense of expertise that equals or even exceeds years of artistic education.

A particularly important observation about the crucial role of dataset awareness also comes from Oppenlaedner. In his paper he describes an interesting challenge faced by the prompt engineers:

> *"Because text-to-image systems were trained on images and text scraped from the Web, users of text-to-image systems need to imagine and predict how other people described and reacted to images posted on the Web. Describing an image in detail is often not enough to achieve optimal results – one has to imagine the image as if it already existed on the Web."* (Oppenlaedner 2022a, 10)

Some examples confirming the scholar's observations can be found in the prompt examples shared by the Discord users. Knowing that museums in their dataset would refer to certain classical postures as a "character portrait" allows for obtaining "consistent prompting results". A prompt of "A dutch girl from 1700" produces a random composition and unpleasant crops. Changing the prompt to "A character portrait of a Dutch girl from 1700" immediately improves the result (see appendix, table 3).

Another interesting example is the use of negative prompting. One user recommends using "--no Josephine Wall" in order to "turn confusing images into clear and simple designs" (see appendix, table 3). That prompt is incredibly smart and presents a deep understanding of how an AI model might process information (and also smart use of one's artistic knowledge, as in the case of using the modifier "by Dan Witz" discussed earlier). Josephine Wall is an artist whose works are rather cluttered, complex and present a multiplicity of elements. In the latent space, her name is probably associated with such clutter. Telling the AI model to exclude her influence from the image is telling the algorithm to cut ties with visual clutter in a way more organic way than simply saying "--no clutter".

However, prompting might require more than an assemblage of "trick phrases"—even if they relate to the professional vernacular. Since the lists such as those seen in the Discord threads are widely available, the once "magical" prompts, as they proliferate, lose their claimed magic. The most important skill in communicating with the AI model to create images that truly stand out is still creative thinking,

especially a context-appropriate smart use of language. A great example of such a phenomenon is described by Andy Baio in his blog post about his first experiences with DALL-e software.

> *"The prompt that finally melted my brain was the one [...] with images of slugs getting married at golden hour. I originally specified a "tuxedo and wedding dress" with predictable results, but changing it to "wedding attire" gave the AI the flexibility to depict variations of what slugs might marry in, like headdresses made of cotton balls and honeycomb."* (Baio 2022).

Figure 19. The results of Andy Baio's prompt "two slugs in wedding attire getting married, stunning editorial photo for bridal magazine shot at golden hour" generated by DALL·E 2 (Baio, 2022).

What Baio did was initially prompt the model for quite a specific imagery of "tuxedo and wedding dress"—and, as such clothing in the dataset is most often assigned to humans, the results were unsatisfying. However, when Baio prompted for a more generic phrase of "wedding attire", he gave the AI more freedom and allowed it to show its understanding of the *concept* of wedding attire. In a process that cannot be traced or fully understood by humans, when the AI model was asked to produce wedding photography with a specific type of light and atmosphere, it showed a surprisingly good understanding of what kind of attire slugs would wear if they got married, taking into consideration their anatomy and environment. Incredibly, thanks to Baio's skilful choice of linguistic description, the results can be compared to what a Disney character designer would propose for a movie about a slug wedding.

The discussions on the *WOP* thread also reveal multiple attempts of the prompters at using language in smart and creative ways. One of the prompting methods involves using rare words that describe a very particular atmosphere instead of their more popularised alternatives. The examples displayed in table 3 include "gossamer" ("dusty, spiderwebby texture"), "filigree" ("intricate details"), "behemoth" ("monstrous results"), or "ornate" ("extreme levels of detail"). Other users opt for constructing longer, slightly poetic phrases in their attempt to extract a certain ineffable atmosphere from the model—"riot of colors", "god particle" or "as above so below" are some examples of such an approach.

There are also users who, hoping for exciting outputs, tend to get more experimental with their prompting phrases by typing in seemingly random and strange words. "Grown from cotton candy", "Action figure", "single-celled-organism", "by Thai puppet theatre" or "made from baked beans" (see appendix, table 3) are some of the more peculiar appearances in the dataset and, as could be expected, the results produced by them are equally unusual. Other examples, such as "X in a Y costume", "upside down" or "Last Known Photograph of" (see appendix, table 3) create what users refer to as "interesting" results. The prompts do not have very clear use cases but have the capacity of producing some unexpected and hence possibly inspirational imagery.

Perhaps one of the more interesting examples of such experimentation is not even strictly connected to using what we generally consider to be language. That method is utilizing emoji. One user recommends "🌝 (:full_moon_with_face:)" as a method of adding "vibrancy and grandeur" to an image (see appendix, table 3). However, the user warns that the emoji prompts are so powerful that they can easily overpower the whole image. Another user, with a similar level of enthusiasm, recommends "🤯 :exploding_head: and 🌅 :sunrise:" as "great flavours" to add to one's prompt (see appendix, table 3). By now, the power of using emoji as elements of prompt crafting has proliferated and in a guide on how to become a power user of Midjourney, the author of the article describes emoji as "powerful prompting tools" (SpyScape, n.d.). According to them, "Midjourney reacts to [emoji] just as it would to any other word, but the succinct combination of meaning and visual information seems to capture the AI's imagination more than mere characters" (SpyScape, n.d.). Emojis take an interesting position between an image and text. When texting, people tend to use emoji to convey certain emotions and reactions that would be more difficult or even impossible to express with words. It seems that Midjourney, in the process of training its neural network has picked up the patterns of human emoji communication and is able to apply the learned ineffable meaning of emojis to generated images.

Key Findings

Both Twitter and Discord datasets provide a look into how Midjourney users choose to interact with the AI model, what they make of the model's reactions and what they deem to be worthy of using as a prompt. The research of both Twitter and Discord environments reveals a wide variety of prompted imaginaries of AI, expressed or arrived at through the practice of prompting.

Many of the prompts seem to be written with an objective of testing the AI against human ability. Those, who mostly use the AI's style transfer function express not only their limited creativity but perhaps an understanding of the machine as having limited capacity—to them, the generative AI is a mere reproduction machine. Others, however, tend to carefully evaluate the machine's possible role as an artist. Such tests of the machine's creativity could already be observed in the early Twitter prompts, where the users were curious to see how the model would "illustrate" both realistic and fictional themes (see table 1). The testing continued in the Discord environment. The machine performed very well in responding to the professional artistic vernacular, but the users didn't seem to perceive it as autonomously creative. It has the capacity to produce incredible imagery, but only under human supervision and direction.

Another type of "testing" that users performed at an early Twitter stage of prompting, was the AI's status as an all-knowing deity. Curiosity led many users to pose existential queries, anticipating the revelations that the model might offer. The model did not seem to impress the user base and the imaginary of AI as a deity remained unrealized. Nevertheless, despite the lack of current acceptance of AI as a divine entity, users persist in seeking answers from the machine in the hope that it may acquire mysterious knowledge over time. Such a phenomenon might be ascribed to the idea that AI possesses at least some mysterious features, which became apparent when several users perceived vastly different results in response to the identical prompt, as demonstrated by the "T-posing" scenario (see figure 14).

The power discourse observed within the Discord platform shed light on the users' firm conviction that humans are still in charge of the machine. It is the user that constrains and directs the model's operations. There is, however, some lingering sense of Promethean anxiety when the users observe that "this thing learns too much" (see figure 15). Still, the fear of the artists being fully replaced by AI models does not seem to dominate the conversation.

The prompted imaginary of the generative technology heavily relies on metaphors and comparisons. Even though the initial curiosities of Twitter users were mostly oscillating around science fiction, it is the magical discourse that took over in the prompting communities. Magical words are not only used in prompts themselves (although they have been observed to add a sense of serendipity to the output). The discourse of magic pervades the way the technology and its capacities are spoken about. Magic is a cognitive metaphor with a strong presence within the discussion.

The discourses of human power and creativity blend with discourses of magic in interesting ways. Even though the technology was not once called "creative" on the thread, it has been called "magical" (see figure 6). However, the "magic" of the machine falls apart with the technical understanding gained by the user. Knowledge is power and those who arrive at the required expertise and become "power users" are themselves called "magicians" and are asked to "share their magic" (see figure 6) with the novices.

Interestingly, AI is simultaneously imagined as possessing both human-like and non-human-like attributes. Like a human, it has its agency, but it is the role of the prompter, as superior to the machine, to constrain or support that agency. Others consider the AI to be non-human, yet many regard this as an advantage. The model can be unexpected and interpret the prompts incorrectly in productive ways. That misunderstanding is the creative potential of AI. By closely observing these instances of productive misinterpretation, the Lovelace effect materializes, leading users to attribute a measure of creative capacity to the machine.

What became clear when sifting through the recommended "words of power" and users' reactions to their efficacy is that there are three key abilities of the prompter that users deem important: good understanding of the dataset that the model has been trained on, command of the professional artistic vernacular, and creative use of language. A good summary of the prompter's task is provided by Kemeny:

> *"The challenge lies in genuinely being able to describe with precision, enough context and quality for the algorithm to interpret what's inside the creator's mind, leave less space for the machine, algorithmically, to fill in the blanks, and using its experience, to create truly unique, one of a kind pieces."* (Kemeny, 2022)

The practice of prompting is frequently envisioned as a prospective substitute for conventional programming techniques. The user base appears to believe that not only will human artists not be displaced by generative AI technology, but even expects those who engaged in art education to be

rewarded for their efforts and gained expertise (see figure 18). Again, the machine is not imagined to replace humans, but rather shift around the roles and formats of human contribution and working methods. The imaginings of users concerning generative technologies often exhibit contradictory elements, but the general consensus about the interaction between the user and an AI model is that not only prompt engineering proves effective in enhancing the quality of generated outcomes, but also that it is a learnable and important future-oriented skill.

Conclusion

The realm of imaginaries of generative AI, as observed within digital spaces dedicated to prompt engineering discussions, exhibits a vast array of diverse and oftentimes contradictory manifestations. The users, in their reliance on metaphors, regularly compare the AI to magic or simultaneously state its similarity and dissimilarity to the human agents. They continue to test the AI's creative capacities in an attempt to imagine the future of artistic practice as relying on dataset awareness, command of the professional vernacular, and creative use of language. Another strongly present imaginary is the one describing the human-machine relationship. The power discourses paint the AI as inferior to the human agent, who still has to direct and edit the product of the model. However, the machine is sometimes perceived as creative. That creative capacity is seen in its productive way of misinterpreting the prompts—thus providing a sense of surprise and serendipity to the final output.

The existing frameworks of algorithmic imaginaries described by Bucher or Bishop are helpful and informative but do not fulfil the analytical needs of the novel AI technology. The changes in use and scale of the new generative AI create a circumstance in which the imaginaries are expressed and arrived at in a different manner than in previous frameworks. The introduction of the concept of a "prompted imaginary" allows for noticing these shifts and contributes to a more comprehensive understanding of the discourses produced by prompt engineers.

What the Lovelace effect allows to see is that the concepts of "creativity" and "intelligence" should remain under constant renegotiation. When it comes to the construction of imaginaries of what "creativity" is, objective reality is not the only determining factor—it is human perception that plays a key role in that evaluation. Humans experiencing the sublime aura of a new technology try to grasp it through familiar metaphors—comparing AI to deities, magic, human or aliens—and it is difficult to tell which imaginary has the capacity to bring the most harm.

The limited scope of this thesis does not allow for exploring the entire range of the research possibilities opened up by the topic of the generative AI imaginaries. Different Discord threads of the Midjourney server or Reddit and Twitter discussions might all reveal new sets of imaginaries about the AI model. Additionally, Midjourney is just one of many existing software giving users access to generative AI. It could be interesting to see how the imaginaries of DALL·E or Stable Diffusion differ from the imaginaries constructed by the Midjourney users. Another possible venue of further research would be diving into a variety of guides, documents, spreadsheets with output examples, lists of "power words",

prompt builders and other forms of knowledge repositories covering prompt engineering, which users build and openly share. This unexplored set of repositories is an excellent source of imaginaries about the inner workings of the generative models, the shape of the future artistic practice and the role of artistic production.

In the fast-developing field of AI, the formative power of the prompted imaginaries remains uncertain. An important aspect of imaginaries of any technology is that they exist in a mutual relationship with that technology. As technology shapes the imaginaries, the imaginaries shape the development of the technology. Each imaginary observed in this research can bring about its own material consequences.

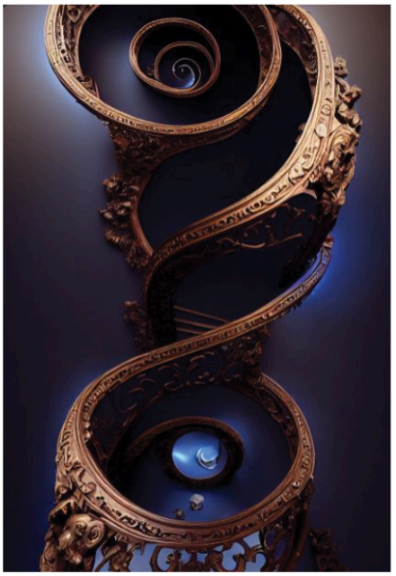
As of the publication date of this thesis, the generative technology of Midjourney has been in public release for less than a year. In the past months, the practice of prompting has immensely developed. The prompting methods were refined and the online communities discussing them grew. New AI models, and new communities, each with their own imaginaries will continue to develop over the coming months and years. For now, the open source and open access nature of the technologies suggests the communities' willingness in sharing their discoveries. However, commercialisation of the practice, fulfilled by the imaginaries of prompting as a profitable specialisation might lead to prompts being turned into a "trade secret" (Oppenlaedner 2022, 9) instead of being a vessel of collaboratively-informed discovery. Already today we can observe the emergence of online marketplaces on which prompters can sell and buy desirable prompts (Heaven 2022a).

The transformations in the commercial landscape of prompt engineering and the shifting regulatory frameworks surrounding AI models pose potential challenges for future investigations into imaginaries. However, we should continue to engage with and study the ways in which the users of a technology communicate about their experiences. Studying prompted imaginaries is not about obtaining concrete, binary answers to questions of whether AI is creative and whether it will replace human artists or kill art. Rather, it is about noticing what a dynamic and productive phenomenon prompted imaginaries are and being able to critically evaluate their impacts in a timely manner.

Appendix

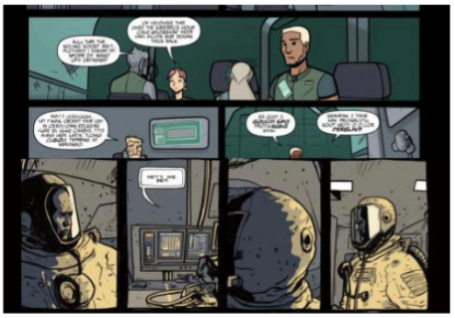
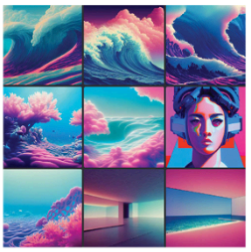
Table 3. Discord dataset of all the keywords shared by the Midjourney users together with the full text of the contribution and example images (Discord 2023).

Word of Power	Full Text	Example Images
ms paint	If you really want take your art to the next level of professional quality, try throwing a little "ms paint" on the end there. It'll take your this: Up to the glory of this:	
Dan Witz	Dan Witz is also a good option for the artist on crowd scenes…that is his speciality	
encaustic painting	This one was discovered by an acquaintance of mine for Stable Diffusion, but works great for MJ as well. Instead of a painting, ask for an encaustic painting. Encaustic paintings are made with pigmented hot wax. The resulting image is rougher and blotchier, but also more textured in a lot of ways.	
medieval woodcut	If you want a cruder look, try "medieval woodcut", which is what got me this	

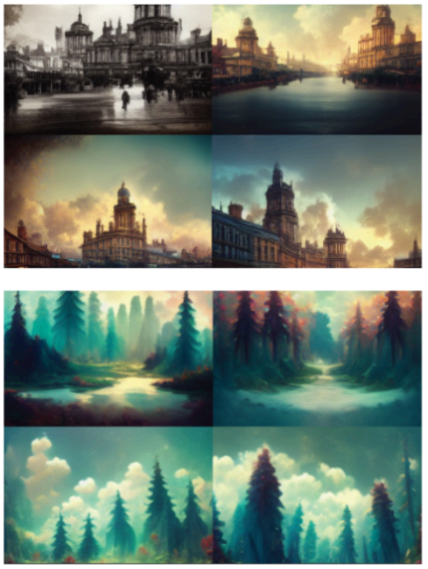
shoebox diorama	Are you me? Haha one of my all time favs is this shoebox diorama, love the cardboard sides	
cameo	“cameo” will make a carved cameo of whatever stone, gem or color you give it. Agate, onyx, alabaster, ebony, indigo, amethyst, jade. These are variations on “$X cameo of a feminine moon face” -- trying to get a cameo of a face that has a moon aesthetic to it:	
wispy soft roving wool watercolor	I llllove “wispy soft roving wool watercolor” , together with “assortment” or “collection” it produces some neat colourful pictures	
chiaroscuro	I use “chiaroscuro” a lot. Means light/dark. Deep shadows and light.	

tarot card	I find that adding “tarot card (artstyle)” (e.g “tarot card minimalist”, tarot card art nouveau”) drastically changes the image it’s better to have —ar 2:3 or 16:9 for this though	 
Xerox art and collage art	I use “Xerox art” and “collage art” together, and some of the results just blow my mind.	 
Fayum and Foveon	Fayum for portraits (in beginning of prompt “fayum portrait of” , in test mode) Foveon for “photo” , in testp mode Taiga for forest scenes (“taiga forest “, in any mode. Gives more wild look for forest)	
linocut	added linocut to some of my photorealistic v3’s and the remasters dont disappoint. it seems to add some awesome textures and help keep most of the original elements? Definitely gives them more depth and surface structure	
Photomontage	“Photomontage of [insert things here]” is like superglue for disparate ideas. (Thanks, portal challenge!) It’s not always right, but you start a lot closer to what you’re describing right off the hop. This was “photomontage of the night sky, gumballs as stars, background is a mountain top --ar 3:2” after 2 vrolls and one remaster.	

Disposable Camera	For an instant horror found footage effect, add “Disposable Camera” to the prompt. Adds light leaks, development vignettes, and other analog goodies	
neonpunk	I’ve been obsessed with using “neonpunk” lately. 🙂	
a comic strip of	Beginning with “a comic strip of” also works, like Rishi Sunak finding out he’s an anthro fox furry	
neon	I love the neon effect because it’s not just bright colors (which you can get with “psychedelic” or similar). It also involves the highlights and contrast of neon gas tubes, and sometimes MJ will even highlight object edges with neon tube. You can keep them or you can remix them away, just leaving some cool streaks of color.	

Webcomic panels	“Webcomic panels” is very influential in v5. Here are some grids with —ar 3:1 garden scene, webcomic panels	
model sheets” and “orthographic view sheet	midjourney seems to be surprisingly good with “model sheets” and “orthographic view sheet”	 
vaporwave	I can’t stop adding “vaporwave” lately. Works with anything. And yes, those are waves 🙂	 
Coverart	Add “, coverart” at the end of your prompt will make square images have a more A-e-s-t-h-e-t-i-c feel when added to whatever prompt. For best results, use “, coverart” in combination with your favorite musician who might have sweet cover art or general theme to visual to their performance.	 
in-action	Hey cool topic! Looking forward to see some secret shares I can steal 😂 My not so secret but favorite word is “in-action” - gives any portrait interesting angles without chore	 
flaticon	My prompt buster is “flaticon”. Add it in front of your prompt for some glorious iconography and logos	

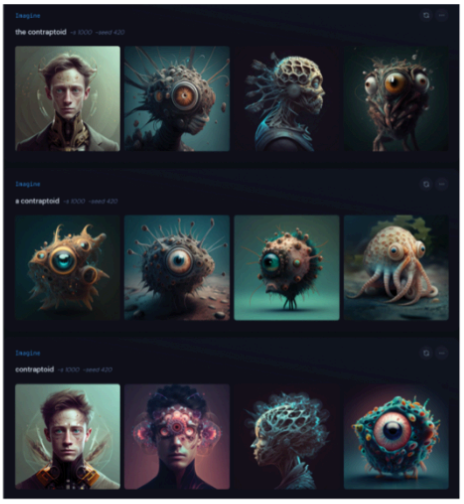
tilt shift	My word is “tilt shift”, it will make everything look miniature or huge.	
key visual	Using key visual instead of “art” or “illustration”, etc. Instant professional finished piece.	
black and white, inked	“black and white, inked” gives me the best spot illustration style for game art	
morning light or dusk	Instead of sunrise or sunset, you can use morning light or dusk to get some nice low sun angles without the extremes of sunrise/sunset	
waning light	another term for similar effect is “waning light”	
radiant light	I’m currently vibing with radiant light a lot atm	

lens flare and godrays	When I make any kind of landscapes, the real prompt boosters for me are “lens flare” and “godrays” They make result so much juicier	
vector	Use vector for a flat coloured result	
render	or render for a more “realistic” shading:	
Rule of Thirds	One more and I have to go to bed. This is another “I think everyone knows this one, but just in case...” Rule of thirds. https://digital-photography-school.com/rule-of-thirds/ Sometimes MJ will do this on its own because a lot of the images it was trained on use the rule of thirds already, but telling it explicitly to use the Rule of Thirds as part of the prompt can ensure more pleasing-looking results.	 

shot descriptions: ‘through’ and ‘over’.	Something I really like for cinematic shots is playing with a couple types of shot descriptions: ‘through’ and ‘over’. Such as through-bus-window-shot, or through-legs-shot, or over-hip-shot or over-shoulder-shot (all shown here). These are some classic cinematic shot descriptions and unlike a lot of prepositions, MJ does a pretty good job with words like ‘over’ and ‘through’ when talking about camera angles. All of these can lead to some really dramatic, cinematic framing and composition.	
T-Posing	I just discovered this! Abandon “Portrait” or “full body” and embrace “T-Posing”! prompt was “lamia [Portrait/T-Posing]”	
Background, Foreground	My buster today: Background, Foreground used like this Setting is [cool setting] background, [character/ view angle/ descriptors of subject] foreground, [everything else] --------- Right: Without using background, foreground	
negative space	“negative space” is my secret weapon in turning boring prompts into something interesting that takes a second to take in	

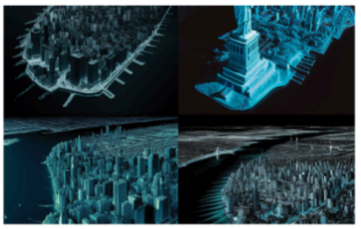
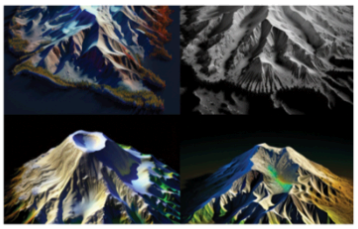
limned light	A word I've been enjoying lately is limned, mostly in the form of 'limned light' to get that lovely halo-ish effect from back/side lighting. Some examples:	 
vertical splitscreen	and vertical splitscreen (volcano)	
infinite-landscape satellite view	to get a zoomed out landscape with focus on a city. keywords are infinite-landscape satellite view without infinite in there, it kept giving images very close inside the city (like standing from a rooftop view ish)	
icon flat	I have found icon flat works really well at giving little cliparty icons	
long-exposure	Have you guys tried long-exposure? I'm upscaling but it's.. fun!	 

Yashica	Yashica Is a vintage camera. The word at the beginning of a prompt has left me with pretty impressive renders	 
Epic Wide Shot	Personally a fan of 'Wide shot' or 'Epic Wide Shot' in my prompts, It has landed me some pretty epic images	 
impressive	This morning I started playing around with "impressive" HQ results without modifications. Here are some examples of just v3 rolls - (note: kitties with impressive then remastered are really good 🙂) An impressive: -field of wildflowers -spaceship -heaven -dress -jungle -diamond ring -monument	
A character portrait	This phrase might be well known, but putting "A character portrait" in front of your prompt will almost always give you a classic head and shoulders result. So the first example is "A dutch girl from 1700 --test --creative" and the composition is random and maybe even cropped. The second example is "A character portrait of a Dutch girl from 1700 --test --creative" and you now get consistent "portrait" results.Pro-tip: If you want to roll the dice and get the same "character" each time you could add --sameseed 12345	   

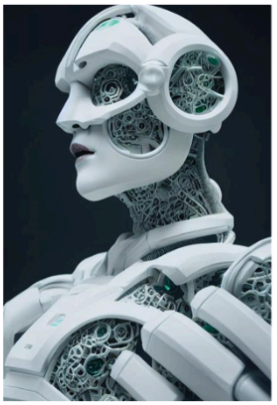
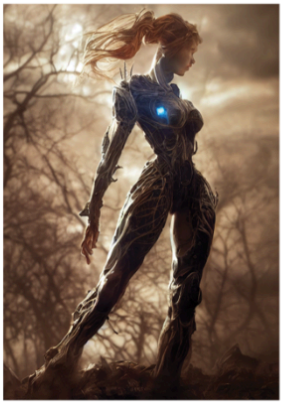
museum lighting	Another one I have been playing with is “museum lighting” gives a nice glow effect on an item...the eggs also have “on a display stand” to give that extra fancy effect	
with friends or & friends	Adding “with friends” or “& friends” after defining your subject results in having multiple characters that share the same style inputs in random variations. Works best with wide --ar, I usually go with 8:5 All examples defined a singular subject then added &/ with friends directly after.	
--no Josephine Wall	I have a very powerful word for you: --no Josephine Wall. It turns confusing images into clear and simple designs. It is also very good in combination with the vector style and --no bokeh to go to extreme stylization.	
an article “a”, “the”	Turns out something as simple as choosing to use an article “a”, “the”, or not at all, can have a significant impact. Likely depends a lot on the rest of the prompt, but here “a” leans to non-human/inanimate, no article leans strongly to a human subject, and “the” is somewhere inbetween. Tested with same seed. Did other seed to make sure its not a fluke of this seed.	
PUNK	I add PUNK to every word in the English language	

Rorschach Inkblot	Type “Rorschach Inkblot, (something)” for some interesting philosophical quandaries on ai interpretation 🙂	
plume	I use “plume” a lot, as in “smoke plumes” or “plumes of smoke”. I did it one day because I thought it would be funny to make a dress that included smoke plumes as a material	
smoke wafting	a bit similar to smoke plumes, here is smoke wafting.	 
--no powerlines	For city scenes, especially anime-style, I’ve found adding --no powerlines really cleans things up nicely:	 
Carnival Style	Carnival Style…it’s my secret sauce.	

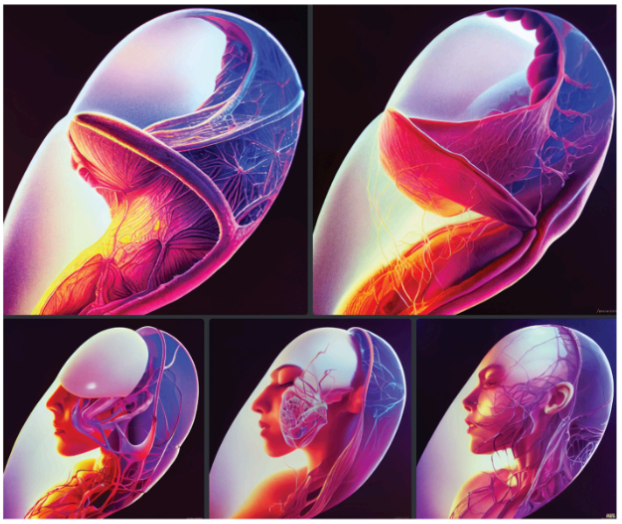
Aquascape	Aquascape. It creates terrain involving both land and water features. Often islands, or land with rivers, something like that. In a single word its an easy way to communicate multiple concepts and set a scene. I used it to good effect here https://www.deviantart.com/nanakoac/art/Paradise-Lagoon-928638158	
chaotic couture	This morning I've been having a lot of fun using "chaotic couture" omg 😮 it makes such amazing fashion designs!	 
Princess Serenity	One of my prompt that can add a gorgeous gorgeous look, believe it or not, is "Princess Serenity". Is it a specific character? Yes. But when you're creating another character, even if this doesn't end up looking like Princess Serenity, it will often end up pulling some gorgeous colors from her palette and lovely fantasy vibes.	 
voodoo	Putting the word voodoo at the start of a prompt turns everything into being sort of...cute? Kind of 🙂	
technicolor	"technicolor" is good for getting a rainbow of colors	

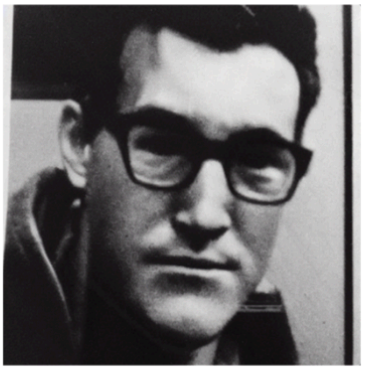
polygonal	My favourite WOPs are: polygonal (volcano)	
bioluminescent	I like using the word "bioluminescent." The first image is a stone path leading to a cottage in a forest, the second image has bioluminescent tacked on after a comma, the third image is an unweighted multiprompt with just the first image and then the word.	
Sparkly	Since V3 I've been using "Sparkly" to add little lights to images, to give them texture. Like fairy lights, stars, all of those kinds of things seem to appear more prominently with "sparkly" I've got an example here where I mention something that should be sparkly and an example where I don't. So you can see how it adds it in regardless whether or not lights or stars are mentioned.	
LIDAR image of	I have just discovered the wonders of "LIDAR image of" It will be false-color or black-and-white by default, and usually have a black background. Here are some examples of the output. The prompts were "LIDAR Image of" and then "Mt. Shasta", "New York City", "Natalia", and "Mclaren"	 
made of shreds of paper	made of shreds of paper	

poro	A poro is a cute fantasy creature that is basically a sphere of fur with feet. Midjourney knows what a poro but its concept is a lit-tle vague, if you just prompt “poro” it’ll randomly assign them sheep traits, pig traits, bunny traits, really anything white and fuzzy. You can take advantage of this vague concept to deliberately sponge up prompts. Because MJ isn’t totally sure what a poro is, concepts from the rest of your image will bleed into it. Below are “a cat riding a poro”, “a dog riding a poro” and “an owl riding a poro”.	
glass paperweight	glass paperweight is pretty sweet	
ethereal lighting	Try adding “ethereal light-ing” to any of your prompts! Always adds so much more emotion to the scene. First image is without it, second with.	
Gossamer	I quite like ‘Gossamer’ as it adds it adds this dusty, spiderwebby texture to everything	

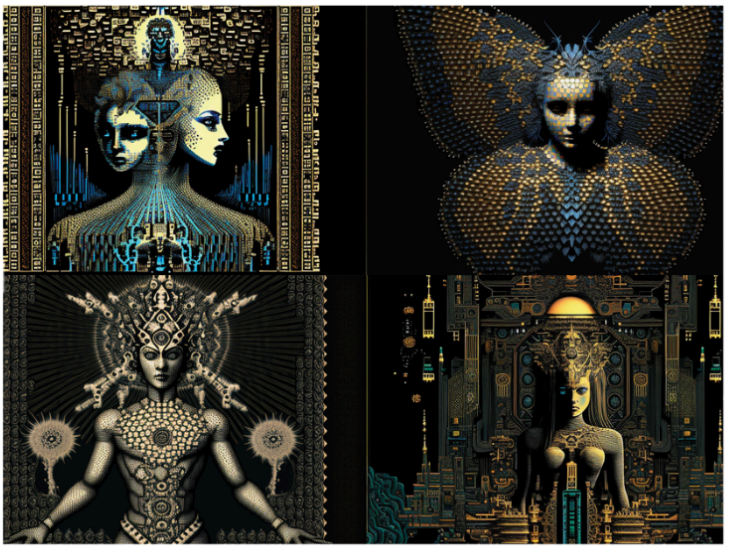
filigree	I love the word filigree. Really can help with intricate details	 
behemoth	Type “behemoth” for monstrous results!	  
Ornate	both sets of images have things like “insanely detailed and intricate” but it seems “ornate” is the biggest force multiplier for extreme levels of detail	 
riot of colors	riot of colors gives you a lot for just a few words. Example: “thalassophobia, riot of colors”	

god particle	adding ‘god particle’ can add some great effects to simple prompts. I added this to just ‘glass skull’	
as above so below	I’ve been using “as above so below” I’m not sure how to describe the effect it has but it seems to give every-thing a sort of mild horror affect maybe?	
gilded	I found the word “gilded” recently and it really adds something. This is combined with “filigree”, and I think it looks awesome	
coffic dance	I meant to do “coffin dance” and accidentally wrote “coffic dance”. However, I learned you can use that term on many subjects from people to animals (cats, dolphins, turtles), and it will make them elaborately dance with dynamic poses and swirls. A real WOP if you’re trying to accomplish that aesthetic and it seems strong enough to keep the aesthetic even if you start adding lots of other keywords.	

remove all colour, leaving only black lines	“remove all colour, leaving only black lines”, is an interesting prompt, that doesn’t do what it says on the tin, but it does deform images in interesting ways, (below) which I am hoping (but not tried yet) will add depth and detail to MJ collage art. the first image is the original, each one following is a reroll of the one above. I couldn’t find my making colouring page prompts , so threw some natural language at it instead	 
canopic jar	Still testing it out, but ‘canopic jar’ as a style has some cool results (If you’re a nerd like me into Egyptology) Did these for Dragonair, Espeon and Pikachu	
grown from cotton candy	Ok. My new token phrase is... any word followed by “grown from cotton candy”. It makes everything awesome.	 
single-celled-organism	rerolling several times to watch the cell evolve using “single-celled-organism”	

Action figure	"Action figure" is quickly becoming one of my favorites. With people you end up with gems like my limited edition Terry Crews action figure (yogurt not included), and with inanimate objects you get an interesting box, though it tends towards looking like a cheap knock-off of the original product.	 
upside down	I've noticed that adding 'upside down' to prompts makes the results very interesting, geometrical and surreal. Especially testp reacts to it by creating symmetrical and geometrical shapes and architecture. Just only using 'upside down' in testp creates this already. In combination with other words/people related prompts it can drastically change the result. In my tests I found out that it often either only shows the head or body, and sometimes both but not attached. I'm not sure how useful it is, but certainly interesting.	
Last Known Photograph of	"Last Known Photograph of" brings some very interesting results: Example: Last known photograph of The Zodiac Killer brought back this guy:	
continuum and midjourney	The words "continuum" and "midjourney" used separately or together can make some pretty cool stuff.	

🌝 (:full_moon_with_face:),	I will forever praise the virtues of 🌝 (:full_moon_with_face:), the images it generates on its own are always wow but you can add it to a prompt to kick up the vibrancy and grandeur. Just be careful it doesn't overpower the rest of the prompt. Think of it as cayenne for your prompts, you gotta have enough of the rest of the recipe or it's just cayenne 🔥 There's a lot of emojis that can be used to tune a prompt. Test them on their own first to know what style it's contributing (about half of emojis I've tested get the generic MJ woman or houses) Here's an example of something I've been working on today. The prompt on its own, the colors are mostly muted, but adding 🌝 makes them vibrant and imo makes the image feel more alive	
🤯 :exploding_head: and 🌅 :sunrise:	🤯 :exploding_head: and 🌅 :sunrise: are also great flavors	
made from baked beans	its more of a phrase but I found in testing that made from baked beans has a very strong impact and its hysterical	 

photographed by <anything>	You can say photographed by <anything> to get a photograph that is somehow in the style of <anything>. 🤔	
Cellular automata	“Cellular automata” with examples to spare! 💜	
by Thai puppet theatre	type by Thai puppet theatre after a selfie, its hilarious!	
-- no render, 3D	V4 has the desire to bring realism to output by adding depth, shadows and 3D effects. While very beautiful it can be undesired for painterly styles. To counteract that you can use -- no render, 3D (or giving them a negative weight) which works really well.	

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