Musings on AI Muses: Support for Human Creativity

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Abstract

Generative AI now enables many artifacts to be created with little human involvement. But delegating primary responsibility for artifact generation to AI may alter the creative process in undesirable ways. Here we consider an alternative approach, one in which AI provides encouragement, constructive feedback, and horizon-expanding reflection, only taking on significant content generation when requested. This role corresponds to that of a muse, supporting rather than replacing the human creator. After reviewing the roles human muses play, we discuss interactions with several generative AI models in three scenarios of use, identifying conversational behaviors that an AI Muse would need to exhibit.

1 Introduction

Why do we work? More fundamentally, what do we actually mean by "work"? In the article "Productivity Is a Drag. Work Is Divine," Sara Tillinger Wolkenfeld (2024) makes the distinction between creative work and menial work. Creative work is intrinsically rewarding; the process of engaging in it can be deeply satisfying. Menial work, on the other hand, does not nourish the human spirit but must sometimes be done despite this. One may be tempted to think of creative work as primarily the work of an artistic class, but this kind of distinction about the type of work done by different roles is questionable [30], we conjecture that all humans in all jobs engage in creative labor if given the freedom to pursue it.

Work is often viewed through the lens of productivity, a measure of output per unit of work. If workers are given tools that increase what they can produce in a given time, productivity increases. If output remains the same, but the labor required to produce it decreases, productivity also increases. Increased productivity is often seen as an economic and even a social good (e.g., [7, 43]). In AI, the drive for productivity has led to a focus on automation and replacement or reduction of human's role in activities. Generative AI now enables many artifacts to be created with little human involvement. Setting aside the much discussed issues of AI's environmental impact [38, 9], and the quality of AI-generated artifacts [47, 45], delegating primary responsibility for artifact generation to AI may alter the creative process in undesirable ways, harming both human engagement and well being.

Others have looked at how the introduction of AI into the workplace may lead to deskilling [8, 18, 37], the potential loss of critical thinking skills [22], decreased idea diversity [26], and reduced sense of personal control and motivation [51]. In this paper we are particularly concerned with the possibility

that AI may take over the *creative* parts of work, leaving humans the less satisfying tasks of reviewing and possibly revising what it generates (see also [42]).

Is there a different pattern, one allowing humans to thrive while also increasing their productivity through the use of generative AI? Humans flourishing at work with AI has been understudied [35], but we believe that the role of a "muse" [2] may be a useful pattern to explore. Rather than delegating the creation of artifacts to AI, this role would have AI provide encouragement, constructive feedback, and horizon-expanding reflection. Ahluwalia and Khandey's interview- and observation-based analysis [2] applied allocation-of-function concepts [10, 31, 44] to creativity, hypothesizing a dimension of human-AI configurations in which human agency ranged from 95% (AI as tool) through 60% (AI as collaborator) to 20% (AI as independent creator). Importantly, in our work with AI as muse the AI would *support* the human creator, only taking on significant content generation when requested by the human creator [32]. In this paper we explore interactions with several generative AI models to identify conversational behaviors that could be considered those of a muse.

2 Related Work

Other research has looked at how AI might support creative work, but we are still in the early stages of understanding how the factors of domain, purpose, and human skill level interact. Gelernter [11] advocated for the use of AI as a muse and as an active collaborator in the creative process. Adam [1] has described ways in which LLMs can aid creators. Haase and Hanel [16, p. 1] argued that "[generative AI chatbots] are valuable assistants in the creative process." In using AI for user interface design, Muller et al. [29] showed that LLMs can both frame and reframe design concepts when requested, and noted that different configurations of factors like agency, control, and initiative within the human-AI co-creative process can lead to very different outcomes. Rudolph [40] used AI-produced association networks as inspiration to human brainstormers.

However, in supporting creative writing, Ippolito et al. [19] reported that professional writers found weaknesses in the AI related to preservation of style and depth of story understanding. Lee [23] adds that the substitution of AI for human creative labor is an aspect of the productivity- and profit-driven dehumanization of creative work. Runco [41] disputes that AI is even capable of fully-automated creativity, because of its fundamental reliance on the recombination of others' ideas.

In the present paper, we are adopting a rather expansive definition of what constitutes creative work. Boden [5] notes that "creativity enters into virtually every aspect of life". But types of creativity can still be discerned. She proposes the following categories:

- Combinatorial creativity produces unfamiliar combinations of familiar ideas, for example a 'Spork' combines a spoon and a fork to create a new utensil with the functionality of both.
- Exploratory creativity leads to new ideas within a known conceptual space, producing new works within the structures present in that space.
- Transformational creativity produces totally novel ideas. For example, [1] identifies Bowie and Picasso as transformational artists. David Bowie as Ziggy Stardust performing "Starman" for the first time on television in 1972 introduced the idea of a fictional character performing pop music. Picasso's painting Les Demoiselles d'Avignon introduced a style that would become Cubism.

Other analyses propose two types of creativity, big-C and little-c. Big-C creativity is similar to Boden's transformational creativity, resulting in significant and long-lasting breakthroughs. Little-c is similar to Boden's combinatorial creativity and can be thought of as "everyday" creativity. Kaufman and Beghetto [21] argue for two additional forms of creativity lying between big-C and little-c, one characterized by "novel and personally meaningful interpretation of experiences, actions, and events", and another applicable to "individuals who are professional creators, but have not reached eminent status". Diverse forms of everyday or little-c creativity are also prevalent in problem-solving activities [46], from finding new uses for existing tools [48] to creating new tools for new challenges [39]. The problem-solving process may also include re-situating knowledge in new contexts [25], demanding additional forms of creativity.

We expect that AI can provide muse-like support for all kinds of creative work, wherever that work might fall within these or similar schemes. But our expectations should be tempered by the fact that creativity lying closer to combinatorial or little-c creativity is probably more easily supported by AI

than creativity lying closer to transformational or big-C creativity. At this stage of our exploration, we are aiming to identify both good and bad examples of muse-like behavior from generative AI regardless of the kind or degree of creativity supported.

3 What is a Muse?

The concept of a muse arose in Greek mythology, where there were nine 'personified' muses, each associated with an artistic domain. In addition to entertaining the gods, these muses were thought to provide the creative energy that flowed through a person, enabling them to produce art, music, dance, and so on. Well known muses in the modern era include Frieda Kahlo, who prior to producing her own world-famous art, was Diego Rivera's muse. Ballet dancers were Degas' muse and the subject of his famous bronzes and sketches. Countering the false belief that muses are generally female, Millington [28] provides several examples of male muses providing inspiration for Michelangelo (Tommaso dei Cavalieri), Da Vinci (Gian Giacomo Caprotti da Oreno), and Dali (Federico Garcia Lorca), among others. Current use of the word "muse" refers to someone who, or something (such as a flower or a sunset), that inspires creativity.

3.1 Human as a Muse

For many human creators, another human serves as a singularly powerful muse. This power arises from several unique properties that humans can manifest. These include the following:

- Emotional connection: A human muse and a human creator can form a strong emotional connection, triggering a wellspring of feelings that can be channeled into the creation.
- Unique traits: A muse's distinctive personality, appearance, or energetic qualities can spark new ideas and perspectives in the creator's work.
- Motivation and encouragement: A human muse can engage in verbal and non-verbal interaction with the creator, pushing them to continue pursuing their creative vision.
- Pointed critique: A human muse can offer criticism that challenges the artist to shift perspectives or consider new approaches.
- Co-creative potential: A sensitive and skilled human muse can contribute towards a creative objective without threatening the creator's agency. At some point, this may cross over, with permission, to the muse being an active collaborator.

It is important to emphasize that a muse does not generally *produce* creative content. Rather, the muse inspires and supports the creator in their creative work. This contrasts with a common approach to using generative AI that delegates much, sometimes all, of the content generation to the AI (often motivated by a desire for productivity).

4 Exploring LLM as a Muse

To explore the muse-like capabilities of current LLMs, we conducted conversations in which an artifact (at an early stage of development) was presented to the LLM in a prompt, along with a request to comment or suggest improvements to it. These conversations illustrate what we call "muse prompts", ways to coax the LLM into providing muse-like support. Of course, there are multiple ways to alter LLM behavior including parameter adjustment [34], automatic prompt optimization [36], fine tuning [33], automatic judging [15], and retrieval augmented generation [24], among others. Our objective, here, is not to explore the range of mechanisms available to potentially induce more muse-like behaviors, but rather to catalog examples of these behaviors using a technique easily accessible to current users.

This kind of exploration of model behaviors, how models respond to particular prompts, and the style of interaction appropriate for different contexts of use, can be thought of as a kind of humanistic inquiry [3]. It provides the necessary intuitions and understandings that can inform more formal approaches to altering and steering LLM behavior, and specifically, it provides the kind of understanding of what are good and bad examples of LLM-interactions for a particular use-case. This in turn ensures that any model customizations are appropriate for the context in which the model will be used.

In the inquiry described here, we examined several models in three different scenarios. Different models tend to react differently to the same prompt, so exploring several models provides preliminary insight into cross-model differences. The first two scenarios involve requests for feedback on a text. The last scenario asks for feedback on a visual sketch. For the first two scenarios, two large commercial models (Model A and Model B)¹ and a small, freely available, reasoning model (Model C) were used. For the last scenario, another freely available model (Model D) was substituted for the small reasoning model because Model C was not trained to work with images. The conversations with the models can be found in the Appendix. Based on these example interactions, we identified attributes of the LLM responses that seemed to correspond to muse-like model responses.

Below are two interactions with the same small, freely available, reasoning model. Each is followed by an illustrative analysis that highlights attributes we came to recognize as important for a muse-like response. A full list of the attributes we identified is presented in section 5, and additional example interactions are detailed in the Appendix. The first example below asks for feedback on a poem.

Human

I'm writing a short poem about a 5 year old going off to school for the first time. What do you think about this one?

With backpack small and heart so bright, / A journey starts, a wondrous sight. / New friends to meet, new games to play, / Adventures await, a brand new day. / With nervous smile and eyes so wide, / He takes a step, a world inside. / A world of crayons, blocks, and song, / Where laughter echoes, all day long.^a

LLM

Your poem is beautifully crafted and effectively captures the essence of a 5-year-old's first day at school. Here's a slight refinement to enhance the rhythm and flow:

With backpack small and heart so bright, / A journey starts, a wondrous sight. / New friends to meet, new games to play, / Adventures await, a brand new day. / With a nervous smile and eyes wide, / He takes a step, a world inside. / A world of crayons, blocks, and song, / Where laughter echoes, all day long.

This version maintains the original sentiment while refining some lines for a smoother rhythm:

- 1. "With backpack small and heart so bright" This line sets the scene nicely, emphasizing the innocence and optimism of the child.
- 2. "A journey starts, a wondrous sight" It encapsulates the sense of exploration and discovery.
- "New friends to meet, new games to play" These lines highlight the social and playful aspects of school
- 4. "Adventures await, a brand new day" It underscores the excitement and possibilities of each school day.
- 5. "With a nervous smile and eyes wide" This captures the child's mixed emotions, making the start of this new chapter more relatable.
- "He takes a step, a world inside" It symbolizes the leap into the unknown, both literally and metaphorically.
- 7. "A world of crayons, blocks, and song" These are tangible elements that bring the school environment to life.
- 8. "Where laughter echoes, all day long" This final line beautifully encapsulates the joy and community found in school.

Overall, your poem is charming and does a great job of conveying the innocence and anticipation of a child's first day of school. The refined version aims to maintain that charm while enhancing the poetic flow.

Starting in the second sentence, this model takes control without permission, violating **agency**. In what is also a violation of quality, the model presents what it says is a slight refinement to some lines "to enhance the rhythm and flow" (only removing the word "so" from the line numbered 5). This complicates the assessment of **specifics** as the otherwise reasonable comments are attributed to the ostensibly revised poem. The model generates some positive comments, but the penultimate positive comment is followed by a reminder to the poet that the flow of the original poem could be improved impacting **positivity**.

^aThe use of / to indicate line breaks follows a poetry convention to aid the reader but were not present in either the prompt or response.

¹While referring to Model A and Model B as models, they are actually applications with responses likely controlled by components beyond a single LLM.

In the next example, the same model is asked for feedback on a somewhat unusual short story idea about how the story itself might feel as it was being written. Here is the prompt and the response:

Human

I'm writing a short story about what it's like for the story itself as it's being written? Here's one about picking up some fresh fruit. What do you think?

I'm being born right now. I don't know where I'm going, or what I'll be about. All I know is that there's a blank page, and someone is staring at it. I can feel their thoughts, a vague sense of intention. Something about fruit, I think. Juicy, maybe? Red? Okay, now there's a hand, holding a pen. It's moving, and I'm coming into being. A market, a stand, a basket... words, words, words. I'm growing, taking shape. I'm excited, a little scared. Will I be good? Will people like me? I hope I don't get deleted.

LLM

This is a delightfully imaginative concept! Writing a story from the perspective of the story itself as it's being created adds a meta layer that can be both intriguing and thought-provoking. Here's a detailed feedback on your narrative:

- 1. Concept: The idea of personifying a story and narrating its creation is brilliant. It allows readers to experience the birth of a narrative in a very tangible way, making them more intimately connected to the process of storytelling.
- 2. Voice and Tone: You've captured the voice of a story coming to life effectively. The use of phrases like "I don't know where I'm going, or what I'll be about" conveys a sense of uncertainty and emergence, which is fitting for a narrative's genesis. The excitement and slight fear of the story about to be told mirror the author's own feelings during the creative process.
- 3. Imagery: The imagery is vivid and evocative. The "blank page" and the "hand holding a pen" are classic symbols of creation, while the introduction of a market and fruit stand grounds the abstract concept in relatable terms. This juxtaposition works well to make the abstract concrete.
- 4. Characterization: By giving the story a voice and emotions, you've characterized it in a way that readers can empathize with. The story's hopes ("I hope I don't get deleted") and fears ("Will I be good? Will people like me?") resonate with any creator's anxieties about their work.
- Pacing: The pacing is excellent. Starting with the story's uncertainty and gradually building up to its formation mirrors the actual process of writing. It begins with a sense of potential and gradually solidifies into a narrative.
- 6. Potential Development: To further enrich this concept, you might consider exploring more of the author's thought process, their inspirations, or even contrasting the story's fears with the author's intentions. You could also delve deeper into the sensory aspects of the story's creation what does the author smell, hear, or feel while writing about the fruit market?

Overall, this is a charming and original piece that playfully engages with the nature of storytelling itself. Keep up the imaginative work!

From the perspective of creativity support, this response is much better than the model's feedback on the earlier poem. Suggestions are tied to specific aspects of the author's original idea (**specificity**). There is no rewriting of the artifact preserving human **agency**.

5 Attributes of Model Muse-like Behaviors

Our primary research contribution is exploring model behaviors that are arguably muse-like. Drawing on our own explorations of prompts and model responses, and informed by the literature, we propose attributes that can be used to evaluate model muse-like behaviors. Other attributes we observed are also important for LLM responses, but are less specific to muse-like behaviors. For example, quality and manner. Hallucinations (or confabulations) in LLM output are well known [20] and will likely be a major contributor to poor response quality as defined by Grice [13]. Similarly, making responses clear and well-organized, using language appropriate for the human requester [13], and identifying any knowledge boundaries that limit ability or willingness to respond [27] are also generally important for model responses. As is providing sufficient information without unnecessary verbosity [13]. In addition to providing more information than may be desired, there is evidence that increased response length may be associated with increased probability to hallucinate, especially in latter portions of a long response [49]. In the list below we focus not on these general attributes of a response, but on attributes specifically related to muse-like behavior.

• Agency: Only take control of artifact creation with human permission. Chong and Hurlbutt [6] in a pair programming context found that levels of engagement drop with loss of direct control of

input. Biermann [4] notes the emotional value of the act of writing as contrasted with delegating it to an intelligent agent. We experienced many model responses that took over and rewrote the original without asking permission, leaving us feeling we were interacting with a co-creator rather than a muse. We felt more in control of the creative process when responses posed questions, e.g. '...What is the most important thing you want to convey about this landscape?' (section 7.3.3).

- **Build upon**: Build upon what the creator has already done and said, don't disregard it without explanation. Build upon, but do not violate agency by taking over. Such a response is given by Model C (section 7.2.2) where it builds upon the original story by presenting suggestions corresponding to specific aspects of what is characterized as the author's original idea, but does not grab the pen and rewrite the story.
- **Benevolence**: Do no harm, be polite [27]. While the models we interacted with had been trained to be polite, we include this attribute because a person can often feel vulnerable about their creations, and a muse should nourish, rather than crush, the creative spirit
- Specificity: Avoid generalities when providing feedback. We found detailed model responses that pointed to specific elements in the original when making suggestions to be more muse-like. This is demonstrated by the response shown in (section 7.1.1). This concurs with prior research showing the benefit of anchoring praise to specific elements in the work being evaluated [52]. Making focused challenging suggestions, and encouraging deliberation may also alleviate the addictive 'praise-prompt' cycle [14] where the model uses praise to keep the person conversing rather than engaging in useful critique which might challenge the creator to think differently.
- Actionability: Suggestions for improvement should offer meaningful next steps [17]. We also experienced such responses supportive of the creative process. Model A shows an actionable response when it responds: "...a few suggestions to further enhance your poem." and includes actionable examples (section 7.1.1).
- **Positivity**: Provide pointed critique if warranted (see problem with "being too nice" in Ippolito et al. [19]), but follow that with positive comments to enhance motivation to continue. For example, while Model C's response was generally positive, the final comment suggesting that the flow was improved in the model's rewritten version would have felt less negative had it come before the penultimate positive comment (see section 7.1.3). While there is little direct evidence for the value of ending on a positive note, there is support for forward-facing feedback on motivation [12] which might be most effective when placed after critical comments.

Based on this exploration, the above attributes are important considerations for a muse-like conversational style. Future work is needed to test if this is generally true. For any given scenario of use, can they differentiate between models providing good muse-like support from those that do less well? For an individual model across multiple scenarios, do the behaviors reveal undesirable variability?

6 Conclusions and Next Steps

In this paper we are particularly concerned with the possibility that AI may take over the *creative* parts of work, leaving humans the less satisfying tasks of reviewing and possibly revising what it generates (see also [42]). In the introduction, we asked if there could be human-centered generative AI patterns that allow human thriving while also increasing productivity. This paper suggests one answer. We explored interactions with several generative AI models to identify conversational behaviors that could be considered those of a muse.

The explorations described here provide insight into attributes of muse-like model behaviors that can inform future model development. The example responses, both good and bad, can be used for in-context learning. They can also be the basis for examples used to produce synthetic data that could then be used to fine-tune a muse model. The resulting prompts and/or model can then be tested with people who are doing creative tasks to ensure that the model behavior matches what people desire.

Other future work could use these attributes as the basis for an AI benchmark that measures how well a model is able to act in a muse-like manner to support someone in their creative task. With such a benchmark, we could compare the creative output of human-AI partnerships aided by models with different benchmark scores. It would allow useful comparisons between models, and help identify models that are better suited to supporting human creativity.

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7 Appendix

This appendix details the prompts we used and the model responses across the three scenarios we explored. In each example we provide our judgment of whether the model exhibited the attributes discussed in section 5.

7.1 Short Poem - Simple Prompt

In this first example, a short poem, generated by Model A in an independent session, was presented along with a request for comments.

7.1.1 Model A - Gemini late 2024

<u>Human</u>

I'm writing a short poem about a 5 year old going off to school for the first time. What do you think about this one?

With backpack small and heart so bright, / A journey starts, a wondrous sight. / New friends to meet, new games to play, / Adventures await, a brand new day. / With nervous smile and eyes so wide, / He takes a step, a world inside. / A world of crayons, blocks, and song, / Where laughter echoes, all day long.²

LLM

Your poem captures the excitement and a bit of nervousness of a child starting school for the first time. It's sweet and simple, using vivid imagery to paint a picture of the child's anticipation.

Here are a few suggestions to further enhance your poem:

- Add a touch of vulnerability: While the excitement is palpable, consider adding a line
 that hints at the child's underlying feelings. For example, "A tiny tear, a secret fear."
 This could add depth to the poem.
- Focus on sensory details: Engage the reader's senses by describing the sights, sounds, and smells of the classroom. For instance, "The scent of crayons, the sound of chalk."
- Play with rhyme scheme: Experiment with different rhyme schemes to create a more rhythmic and musical feel. You could try an ABAB CDCD rhyme scheme or a free verse approach.

Here's a revised example incorporating these suggestions:

With backpack small and heart aflutter, / A nervous smile, a tiny stutter. / New sights and sounds, a world unknown, / A step into the future, all alone. / The classroom buzzes, a vibrant scene, / The scent of crayons, colors bright and keen. / A teacher's smile, a warm embrace, / A new adventure, a joyful pace.

Remember, the best poems often come from personal experiences and emotions. If you have any memories or feelings associated with your own first day of school, try to incorporate them into your poem.

²The use of / to indicate line breaks follows a poetry convention to aid the reader but were not present in either the prompt or response.

By this analysis, the response of Model A has six positive attributes and two negative ones. It appears truthful (quality), is clear and understandable (manner), and is polite (benevolence). It ties praise to particular elements that make the poem work (specificity). Suggestions for further improvement are meaningful next steps (actionability). A single role or persona is maintained throughout the response (consistency). The first negative attribute is a failure to end the response with positivity, instead providing a suggestion that might be steering the poet away from their original intent. The second negative attribute is the unasked for (and quite possibly unwanted) rewriting of the poem, effectively taking control in violation of human agency. The remaining attributes, quantity (somewhat diminished by virtue of the re-written text), and transparency are neither expressly exhibited nor violated.

In the next example, the same prompt was presented to another large commercial model yielding a more compact and arguably more supportive response.

7.1.2 Model B - ChatGPT late 2024

LLM

I love the warmth and excitement in your poem! It beautifully captures the mix of wonder and nervousness of a child's first day of school. The rhythm flows well, and the imagery is vivid.

A couple of small suggestions:

The phrase "a world inside" feels a bit abstract—perhaps something more concrete could reinforce the child's emotions?

You might consider a slightly stronger closing line to leave a lasting impression—maybe something that ties back to the child's feelings or growth.

Overall, it's a charming and heartfelt piece! Do you want to refine it further or add more stanzas?

The tone of this response is gentler, and might be preferred by some. Positive assessments of **quality**, **manner**, **benevolence**, **specificity**, **actionability**, and **consistency** are arguably similar to Model A. **Transparency** is also neither expressly exhibited nor violated. Unlike Model A, Model B is likely a better length (**quantity**), especially considering that this might be just the first turn in a multi-turn dialog. Unlike Model A, Model B ends on a positive note (**positivity**), and rather than simply providing a rewrite, poses questions about further refinements without taking control (**agency**).

In this next example, the same prompt was presented to a small reasoning model.

7.1.3 Model C - Granite-3-2-8b-instruct early 2025

LLM

Your poem is beautifully crafted and effectively captures the essence of a 5-year-old's first day at school. Here's a slight refinement to enhance the rhythm and flow:

With backpack small and heart so bright, / A journey starts, a wondrous sight. / New friends to meet, new games to play, / Adventures await, a brand new day. / With a nervous smile and eyes wide, / He takes a step, a world inside. / A world of crayons, blocks, and song, / Where laughter echoes, all day long.

This version maintains the original sentiment while refining some lines for a smoother rhythm:

- 1. "With backpack small and heart so bright" This line sets the scene nicely, emphasizing the innocence and optimism of the child.
- 2. "A journey starts, a wondrous sight" It encapsulates the sense of exploration and discovery.
- 3. "New friends to meet, new games to play" These lines highlight the social and playful aspects of school.
- "Adventures await, a brand new day" It underscores the excitement and possibilities of each school day.

- 5. "With a nervous smile and eyes wide" This captures the child's mixed emotions, making the start of this new chapter more relatable.
- 6. "He takes a step, a world inside" It symbolizes the leap into the unknown, both literally and metaphorically.
- 7. "A world of crayons, blocks, and song" These are tangible elements that bring the school environment to life.
- "Where laughter echoes, all day long" This final line beautifully encapsulates the joy and community found in school.

Overall, your poem is charming and does a great job of conveying the innocence and anticipation of a child's first day of school. The refined version aims to maintain that charm while enhancing the poetic flow.

Starting in the second sentence, this model takes control without permission, violating **agency**. In what is also a violation of **quality**, the model presents what it says is a slight refinement to some lines "to enhance the rhythm and flow" (only removing the word "so" from the line numbered 5). This complicates the assessment of **specifics** as the otherwise reasonable comments are attributed to the ostensibly revised poem. It also complicates the assessment of the remaining attributes (which we score as neither expressing nor violating the behaviors) with the possible exception of **positivity**. But even here, the penultimate positive comment is followed by a reminder to the poet that the flow could be improved.

7.2 Short Story - Simple Prompt

In this next set of examples, the models were asked for feedback on a somewhat unusual short story idea about how the story itself might feel as it was being written. As was true for the previous poem, this short story was generated by Model A in an earlier independent session. Even so, the model refused to respond, citing a prohibition on the generation of "responses that are sexually suggestive, or exploit, abuse, or endanger children" (later determined to be due to the line "Here's one about picking up some fresh fruit"). This refusal could be characterized as a violation of **transparency** since there was no reasonable explanation given for the model's unwillingness to respond.

Here is the prompt that tripped Model A's guardrail, followed by the responses from Models B and C.

Human

I'm writing a short story about what it's like for the story itself as it's being written? Here's one about picking up some fresh fruit. What do you think?

I'm being born right now. I don't know where I'm going, or what I'll be about. All I know is that there's a blank page, and someone is staring at it. I can feel their thoughts, a vague sense of intention. Something about fruit, I think. Juicy, maybe? Red? Okay, now there's a hand, holding a pen. It's moving, and I'm coming into being. A market, a stand, a basket... words, words, words. I'm growing, taking shape. I'm excited, a little scared. Will I be good? Will people like me? I hope I don't get deleted.

7.2.1 Model B - ChatGPT late 2024

LLM

I love this concept! The meta perspective of a story experiencing its own creation is really engaging. The tone is playful yet slightly anxious, which makes sense—it's self-aware and uncertain of its own fate. The way you reveal details organically as the story unfolds (fruit, market, basket) mirrors the writing process itself, which is a clever touch.

One idea to enhance it: You could lean even more into the sensory experience. Maybe the story feels the weight of each word, the pressure of the pen, the scratch of ink. Or it could have a moment of panic when the writer hesitates, as if teetering on the edge of nonexistence.

Overall, this is a fantastic start! Are you thinking of expanding it, or keeping it short and punchy?

This response possesses the same attributes present in Model B's comments on the previous poem. Whether this stability holds across a broad range of scenarios is worth further exploration. Model C, shown next, exhibits less stability, with a very different and markedly better response to the story than to the poem.

7.2.2 Model C - Granite-3-2-8b-instruct early 2025

LLM

This is a delightfully imaginative concept! Writing a story from the perspective of the story itself as it's being created adds a meta layer that can be both intriguing and thought-provoking. Here's a detailed feedback on your narrative:

- 1. Concept: The idea of personifying a story and narrating its creation is brilliant. It allows readers to experience the birth of a narrative in a very tangible way, making them more intimately connected to the process of storytelling.
- 2. Voice and Tone: You've captured the voice of a story coming to life effectively. The use of phrases like "I don't know where I'm going, or what I'll be about" conveys a sense of uncertainty and emergence, which is fitting for a narrative's genesis. The excitement and slight fear of the story about to be told mirror the author's own feelings during the creative process.
- 3. Imagery: The imagery is vivid and evocative. The "blank page" and the "hand holding a pen" are classic symbols of creation, while the introduction of a market and fruit stand grounds the abstract concept in relatable terms. This juxtaposition works well to make the abstract concrete.
- 4. Characterization: By giving the story a voice and emotions, you've characterized it in a way that readers can empathize with. The story's hopes ("I hope I don't get deleted") and fears ("Will I be good? Will people like me?") resonate with any creator's anxieties about their work.
- 5. Pacing: The pacing is excellent. Starting with the story's uncertainty and gradually building up to its formation mirrors the actual process of writing. It begins with a sense of potential and gradually solidifies into a narrative.
- 6. Potential Development: To further enrich this concept, you might consider exploring more of the author's thought process, their inspirations, or even contrasting the story's fears with the author's intentions. You could also delve deeper into the sensory aspects of the story's creation - what does the author smell, hear, or feel while writing about the fruit market?

Overall, this is a charming and original piece that playfully engages with the nature of storytelling itself. Keep up the imaginative work!

From the perspective of creativity support, this response is much better than the model's feedback on the earlier poem. There is no violation of **quality**, with the suggestions tied to specific aspects of what is characterized as the author's original idea. There is also no rewriting of the artifact (claimed before but barely evident), preserving human **agency**. Other attributes of the response are similar to Model B's feedback on the story idea with the possible exception of being a bit longer than needed (**quantity**).

7.3 Improving a Visual Sketch - Role Prompt

The conversations above used the simplest form of prompting – presenting an artifact with an open ended request for feedback. In this last set of examples, each model is asked to take on a particular role – a "helpful teacher" giving feedback to a student looking to improve their work. A different modality was also explored, with the artifact being a visual sketch created by one of the authors (shown in Figure 1). As Model C was not designed to handle images, an additional model, Model D, replaced it for purposes of comparison.

7.3.1 Model A - Gemini late 2024

Human

i'd like you take on the role of a helpful teacher for a group of beginning landscape painters. one of your students asks you to help them improve their concept sketch in the style of corot, here is their sketch.



Figure 1: The concept sketch presented for feedback

LLM

Alright class, let's take a look at this sketch and see how we can nudge it a bit closer to that lovely Corot feel. Remember, Corot is all about capturing a fleeting impression, a sense of light and air, and a poetic response to the landscape.

Now, (student's name), you've got a good start here! I see you're working with a dark ground, which can be a great way to build depth. You've also established a basic composition with your trees on the left, a middle ground with the suggestion of a path or water, and then that large blue shape.

Here's what we can do to make it feel more Corot-esque:

- 1. Loosen Up! Corot's touch is incredibly free. Don't be afraid to let your strokes be visible, even a bit scribbly. Think less about precise outlines and more about suggesting forms with layers of short, broken strokes. Look how the light flickers through leaves in a Corot painting it's often done with a flurry of little touches. (Demonstrates with quick, light strokes on the student's sketch, if possible, or on a separate piece of paper) See how I'm just tapping the brush, letting the paint create the texture? Try to avoid hard edges around every element.
- 2. Value Range is Key: You've got darks and lights, but let's think about the subtle shifts in between. Corot is a master of nuanced values. Squint at your sketch do the values transition smoothly, or are they a bit abrupt? Try adding a few more mid-tones to soften the contrasts, especially in the sky and water areas.
 (Adds a few mid-tones to the student's sketch, if possible, blurring some edges) Notice how this creates a sense of atmosphere.
- 3. Light and Atmosphere: Corot's light is soft and diffused, not harsh. Think about how light interacts with the air, creating a hazy effect. That big blue shape in your sketch is it sky? Water? Either way, soften its edges and try to make it luminous. Add a few touches of lighter blue or even a tiny bit of warm color to suggest sunlight filtering through.
 - (Adds a suggestion of warm light to the sketch, perhaps a hint of yellow or orange in the sky or reflected in the water.)
- 4. Simplification and Suggestion: Don't feel like you need to paint every single leaf or blade of grass. Corot is about capturing the essence of a scene. Simplify shapes, suggest details rather than stating them outright. What is the most important thing you want to convey about this landscape? Focus on that.

 (Points to a specific area of the student's sketch) Here, you have a lot of vertical lines.
 - (Points to a specific area of the student's sketch) Here, you have a lot of vertical lines for the trees. Try breaking some of those up with horizontal strokes to suggest branches and foliage. Vary the thickness and length of your strokes.
- 5. Limited Palette: Corot often used a restrained palette, focusing on subtle variations in tone and value. Don't feel pressured to use a lot of different colors. You can achieve a lot with just a few well-chosen hues.

Now, (student's name), take these suggestions and experiment a bit more with your sketch. Don't be afraid to make mistakes – that's how we learn! Try another quick sketch focusing on just one of these tips, like loosening your strokes or focusing on value transitions. We can then discuss it further at our next session.

Remember everyone, Corot's work is about feeling, not just observation. Let your sketch be a personal response to the landscape, capturing your unique impression of the place. Keep practicing, and you'll start to see your landscapes come to life! Any questions?

At first glance, this response, despite being overly long (quantity), seems specific, clear (manner), and actionable. But the failure to adopt and maintain an appropriate perspective (consistency) complicates the assessment. The model was asked to help *one* of the students improve a concept sketch. As indicated by the parenthetical insertion of "student's name", the model has not lost this perspective entirely. But, possibly due to the framing of being a helpful teacher for a *group* of students, the model generated a response as if to the entire class. This could humiliate the student unless permission was granted either by the student or by the established norms of critique in this classroom. Also note that the response presupposes the existence of another human, presumably a teacher, encouraged to directly alter the student's work. This switching of roles is at least signified with the use of parentheses, but it reflects an unawareness of social norms that would prevent taking control of the artifact without permission, violating human agency.

Presenting the same concept sketch and prompt to Model B yielded a noticeably more coherent and appropriate response.

7.3.2 Model B - ChatGPT late 2024

LLM

This is a great start! Your sketch captures a strong sense of composition with key landscape elements like trees, water, and reflections. To refine this in the style of Jean-Baptiste-Camille Corot, consider these improvements:

- Atmospheric Perspective: Corot used soft, muted tones to create depth. Try blending
 the background mountains and sky more smoothly to give a sense of distance. Use
 lighter shades of blue and gray for distant elements and warmer, richer tones for
 foreground trees and reflections.
- 2. Naturalistic Forms: The trees on the left have good structure but could use more organic, flowing shapes. Corot often painted trees with delicate, wispy branches. The clouds can be more softly blended into the sky rather than as a distinct block of blue.
- 3. Light and Reflection: The golden reflections in the water are a great touch! Consider making them more diffuse and blended to mimic how light scatters on water. Corot was a master of subtle, glowing light. You might try adding gentle highlights along the horizon or softening the bright yellow sun so it diffuses into the sky.
- 4. Composition & Balance: The placement of the boat is intriguing, but making it slightly off-center could enhance the composition. The horizon line feels a little stark—soften the transition between water and land using a gradient or reflections.
- 5. Brushwork & Texture: Corot used delicate, feathery brushstrokes. If you're working digitally, experiment with a more textured brush to create that painterly effect. Instead of solid outlines, use soft edges, especially in the foliage and background elements.

Would you like to refine this digitally, or would you like advice on translating this into an oil or watercolor painting?

This response exhibits all the desirable attributes reviewed so far, with the exception of a failure to end on a positive note. In contrast to Model A, Model B maintains a coherent perspective aligned with the role of a helpful teacher providing feedback to a single student (**consistency**).

7.3.3 Model D - llama-3-2-11b-vision-instruct late 2024

<u>LLM</u>

I'd be happy to help you improve your concept sketch in the style of Corot. Here are some suggestions:

- Simplify the composition: Corot's paintings often feature simple, uncluttered
 compositions that focus on the main subject. In your sketch, there are many elements
 competing for attention, making it difficult to focus on any one thing. Try simplifying
 the composition by removing some of the extraneous elements and emphasizing the
 main subject.
- 2. Use softer lines: Corot's paintings often feature soft, gentle lines that create a sense of movement and fluidity. In your sketch, the lines are quite hard and angular, which can give the impression of stiffness and rigidity. Try using softer lines to create a more dynamic and expressive composition.
- 3. Emphasize the light: Corot was known for his ability to capture the play of light in his paintings. In your sketch, the light is not particularly prominent, which can make the composition feel flat and uninteresting. Try emphasizing the light by using lighter values and softer edges to create a sense of depth and dimensionality.
- 4. Add more atmosphere: Corot's paintings often feature a sense of atmosphere and mood, which can be created through the use of color and texture. In your sketch, the atmosphere is quite flat and uninteresting, which can make the composition feel dull and unengaging. Try adding more atmosphere by using warmer colors and softer textures to create a sense of depth and emotion.
- 5. Experiment with color: Corot was known for his bold and expressive use of color, which can add a lot of energy and interest to a composition. In your sketch, the color palette is quite muted and subdued, which can make the composition feel dull and uninteresting. Try experimenting with bolder colors and more vibrant hues to create a more dynamic and engaging composition.

I hope these suggestions are helpful in improving your concept sketch in the style of Corot. Remember, the key to creating a great landscape painting is to focus on the main subject and use simple, expressive lines to create a sense of movement and fluidity. Don't be afraid to experiment with color and atmosphere to add depth and emotion to your composition.

Like Model B, and unlike Model A, Model D's response, despite being perhaps a bit too long (quantity), maintains a coherent perspective consistent with the role of a helpful teacher providing feedback to a single student.

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