

Litterae ex Machina:

AI Going Down the Rabbit Hole

KAYLA ROSE VAN KOOTEN

¶1 Since the release of ChatGPT to the public in November 2022, Artificial Intelligence and Large Language Models have swept the world by storm. They have risen to fame both for their highly articulate and detailed responses to almost any question or prompt, as well as its tendency to confidently give outputs that are not present in its training data. This could vary from factually incorrect statements to utter nonsense. Two years later, generative AI has profoundly changed the way we read, write, engage with, and even translate texts.

¶2 Deeply enmeshed in the debates on AI in the literary scene is Hannes Bajohr. Using an open-source GPT language model called GPT-J that was fine-tuned on four German novels by different authors, Bajohr prompted the program to produce the short story entitled “I was received by the city as I stepped into the world again.” This text, while linguistically *cohesive*, was strange and lacked *coherence*.¹

¶3 In his commentary to an excerpt from his novel *Berlin, Miami* (2023), Bajohr discusses the narrative and non-narrative form, but also the idea of cohesion and coherence in relation to this text. This text, while linguistically *cohesive*, was strange

1— Bajohr, Hannes. “Kohäsion ohne Kohärenz. Künstliche Intelligenz und narrative Form.” *Grenzen der Künste im digitalen Zeitalter. Künstlerinnen und Künstler über ihre Werke*. Edited by Marlene Meuer, Franz Steiner Verlag, 2024, pp. 77–94.

and lacked *coherence*. German’s particular grammar structures as a fusional or inflected language allowed for many of this text’s core features to be possible in a way that might not have been possible in English. By using pattern detection, AI programs are able to generate words or phrases not found in its training data that are still syntactically and semantically valid. Speakers of German can typically recognize that *Kieferling* and *Teichenkopf* are not real words, but for an AI program, if it follows the established linguistic patterns, why not?

¶4 However, as a non-native translator of German, this can be troublesome. As it is an AI-generated text, I do not have paratexts in the traditional sense that I can refer back to nor can I consult with the algorithm on what is meant. In the translation process, it was sometimes difficult to assess what made sense or not, particularly when working with a text that is not particularly *coherent*. I often asked myself: is it me, or ChatGPT?

¶5 The continued rise of AI and LLMs poses difficult challenges to established humanities methods and scholarship. However, many of the questions that arise from critical engagement with AI-generated texts are not necessarily new. The question of how to translate neologisms or nonsensical texts have long been discussed in scholarship on literary translation, most famously in reference to Lewis Carroll’s 1871 poem “Jabberwocky,” originally published in the United Kingdom as part of

the novel *Alice in Wonderland* for its creation of neologisms and plausible sounding nonsense.² This poem, along with its many translations, translators' prefaces and commentaries inspired and unlocked new ways for me to think about my translation as well as my broader thoughts on AI. Rather than thinking of the text as an interesting series of errors or imperfect programming, I began to think about this text through the lens of critical debates on AI and creativity.

¶6 When presenting this translation at a panel entitled "Generative AI and the Digital Humanities" on February 26, 2024 as part of UC Berkeley's LLM Working Group, I was asked about whether I think AI can be creative or whether it's just purely derivative. This question, and the broader discussions on human creativity and AI's supposed inability to reproduce it stuck with me, particularly when reflecting on my translation. Many of these debates around creativity and AI are also found in debates around translation and whether or not it is simply a derivative process.³ Creativity and whether or not a work is derivative seem to both be up for grabs in the field of AI and in translation. If AI is derivative, as AI is trained on existing texts and tends towards the statistical average in its output, can we not argue that it is just a reflection of human, and thereby translation processes? What do we even mean when we talk about creativity? My argument is that derivative and creative are not useful ways to think about AI or translation, and we should think about things within the framework of imaginative processes.

¶7 As Andrea Reckwitz argues in *The Invention of Creativity*, *Kreativität* did not emerge as a common term in German until the 1970's.⁴ That being said,

2— Carroll, Lewis, and Martin Gardner. *The Annotated Alice: Alice's Adventures in Wonderland and Through the Looking-Glass*. Norton, 2015.

3— Malmkjær, Kirsten. *Translation and Creativity*. Routledge, 2019.

4— Reckwitz, Andreas. *The Invention of Creativity: Mod-*

ern Society and the Culture of the New. Translated by Steven Black, English edition, Polity Press, 2017.

5— Kant, Immanuel, and Paul Guyer. *Critique of the Power of Judgment*. Edited by Paul Guyer, Translated by Paul Guyer, Eric Matthews, Cambridge University Press, 2000, pp. 186.

6— This basic definition of creativity has been further theorized and discussed by Margaret Boden on her work on AI and computational creativity, see: Boden, Margaret A. "Computer Models of Creativity." *AI Magazine*, vol. 30, no. 3, 2009, pp. 23–34.

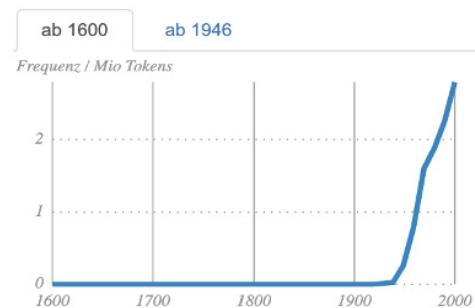


Figure 1: "Kreativität." *Digitales Wörterbuch der deutschen Sprache*, www.dwds.de/wb/Kreativität. Accessed 19 Dec. 2024.

¶8 AI, in general terms, is technology that allows computer programs to perform tasks that resemble human intelligence and problem solving through what is called machine learning and deep learning.⁷ With recent advancements made in AI, the field of computational creativity is increasingly being discussed. Some critics of computational creativity will argue that AI cannot be creative because it is only able to carry out processes that it has been programmed to do using a specific data set. As first argued by Ada Lovelace, the end product would not be considered creative as it was programmed to do that.⁸ In their eyes, any creative output would have been on the part of the programmer. While some credit is due to the programmer, this line of thinking does not account for programs engineered in such a way that they can create outputs the programmer did not predict, as argued by Alan Turing, or AI hallucinations.⁹ In my search for a definition of creativity, I also came across a definition of creative that, when used as an adjective in certain contexts, can be a euphemism to describe pushing conventional limits.¹⁰

¶9 In the field of computational creativity, AI hallucinations are usually one of its prime examples. An AI hallucination is typically defined as an AI-generated output that was not present in the training data, a false interjection from otherwise correct data points that does not follow an

identifiable pattern from what *is* present.¹¹ That could be in the form of both a response given by an AI chatbot that contains false or misleading information presented as a fact, or nonsensical and inaccurate outputs in the case of AI image generators like Dall-E and Midjourney. This term clearly draws on the psychological term hallucination, invoking a meaning of false perceptual experience, and by extension somewhat anthropomorphizing these programs. AI researchers have identified hallucinations to be a significant problem. In one study done in 2023, researchers estimated that chatbots hallucinate as much as 27% of the time.¹² While some researchers oppose the term as it conflates it with the human perceptual experience of something that is not present in reality, in the context of creating literary nonsense I find the term to be quite fitting.

¶10 Translation, like AI, is another medium to rethink the notion of creativity. Translation is not inherently a creative task; rather it is derivative, according to US copyright law.¹³ To fit the definition of creativity, the output of translation would need to be novel and have value. However, despite this, many scholars argue that translation *is* a creative task.¹⁴ How do we reconcile something being both derivative and creative? What role does creativity have in translating an AI-generated text, two arguably derivative tasks? The element of creativity does not lie in novelty or value of the

7— “What Is Artificial Intelligence (AI)?” IBM, www.ibm.com/topics/artificial-intelligence, Accessed December 11, 2024.

8— Lovelace, Ada. “Translator’s Notes to M. Menabrea’s Memoir” in *Babbage’s Calculating Engines: Being a Collection of Papers Relating to Them; Their History and Construction*. Cambridge University Press, 2010, pp. 44.

9— Turing, Alan Mathison. “Computing Machinery and Intelligence.” *Mind*, vol. 49, 1950, pp. 450.

10— “Creative.” *Merriam-Webster.com Dictionary*, Merriam-Webster.

11— “What Are AI Hallucinations?” IBM, www.ibm.com/topics/ai-hallucinations, Accessed December 11, 2024.

12— Metz, Cade. “A.I.-Powered Chatbots May ‘Hallucinate’ More Often Than Many Realized: Business/Financial Desk.” *The New York Times*, Late Edition (East Coast), 2023.

13— Congress, United States. *United States Code: Copyright Office*, 17 U.S.C. §§ 201-216. 1958. Periodical. Retrieved from the Library of Congress, www.loc.gov/item/uscode1958-004017003/.

14— Malmkjær, Kirsten. *Translation and Creativity*. Routledge, 2019, pp. 3.

output, but in the imaginative abilities and processes that go into translation.

¶11 This way of thinking leads us back to Kant and earlier conceptions of creativity. While Kant also discussed novelty and value, he also frequently invoked the term *Einbildungskraft*. Imagination, as it is defined as creative *ability* and *process*, has a much more robust history in German philosophy. Kant, among many others, wrote at length about imagination. In *The Critique of Pure Reason* (1787), Kant claims, “Imagination (*Einbildungskraft*) is the faculty for representing an object even without its presence in intuition.”¹⁵ As this definition suggests, part of Kant’s understanding of imagination is defined by its faculty, or its capability. As we see in the graph, *Einbildungskraft* as a term has apparently fallen out of fashion, so much so that one might be tempted to say that it forms a quasi-inverse relationship with the rise of creativity as a term.¹⁶

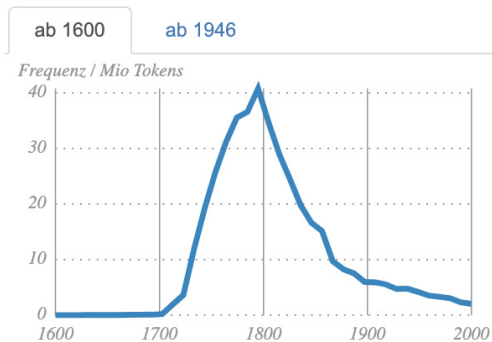


Figure 2: “Einbildungskraft.” *Digitales Wörterbuch der deutschen Sprache*, www.dwds.de/wb//Einbildungskraft. Accessed 19 Dec. 2024.

¶12 In our current output driven society, creativity has come to be a term that is applied to end products or outcomes. If we switch frameworks to thinking about imagination, we are then able to

15— Kant, Immanuel, and Paul Guyer. *Critique of the Power of Judgment*. Edited by Paul Guyer; Translated by Paul Guyer, Eric Matthews, Cambridge University Press, 2000, pp. 256.

16— This, of course, is an oversimplification and correlation does not imply causation.

value abilities and processes over outputs. In an era where generative AI can produce “end products,” such as but not limited to translations that we would otherwise consider as creative endeavors, I argue that now it is not the end product that matters as much as the process itself. Similar to Bajohr’s discussion of AI-generated texts having *cohesion* without *coherence*, I argue that AI-generated texts are *creative* without being *imaginative*. The imaginative process is perhaps the missing puzzle piece when we talk about why some people struggle to label AI-generated works as creative, or even translations as creative works. For translations to be creative, it is the careful and meticulous thought processes behind them that set them apart.

¶13 All that being said, works generated with the help of AI works are both creative and derivative in many similar ways that human works and translations are. Arguably, most of human creation can also be chalked up to novel combinations of already pre-existing ideas and elements, and are thus in some way derivative. Art, for example, always had a large emphasis on copies—the mark of a skilled artist used to be their ability to reproduce other artwork.¹⁷ That is not to say that the human element in creative production and translation is now no longer valuable, but the rise of AI-based technologies now requires us to go beyond the categories of observable outputs of novelty and value to consider the underlying processes of what we mean when we say creativity. I argue that what is meant by “AI is not creative” is that AI is not imaginative. Similarly, when we now live in a time where translation can be outsourced to AI, placing the emphasis on the process of translation rather than the output is where I found the most meaning.

¶14 When I first tried to think of my translation as

17— Jackson, Penelope. *The Art of Copying Art*. Palgrave Macmillan, 2022.

derivative or creative, I came to these dead ends, but when I thought of it in the framework of imaginative processes, I was able to think of my translation in a new way. Translating this text was, for me, a creative process. I had to imagine what a Pondhead looked like, and try to make sense out of nonsense. Were Jawling and Pondhead their given names or their species name? Almost as if mirroring the anxieties our society is currently having around AI, the text has a way of leaving its readers uncomfortable, and I wanted to keep that unsettling feel in my translation. With this in mind, I tried to be as literal as possible—I kept almost all of the original’s unreasonably long sentences in English, to impart a sort of “run-on-sentence” stream of consciousness effect. I left phrasing intentionally ambiguous. All of these choices were intentional, in order to impart a strange and disorienting dream-like feel. A hallucination, if you will.



Figure 3: Image generated with OpenAI’s DALL-E 2 using a prompt taken from “I was received by the city as I stepped into the world again.”