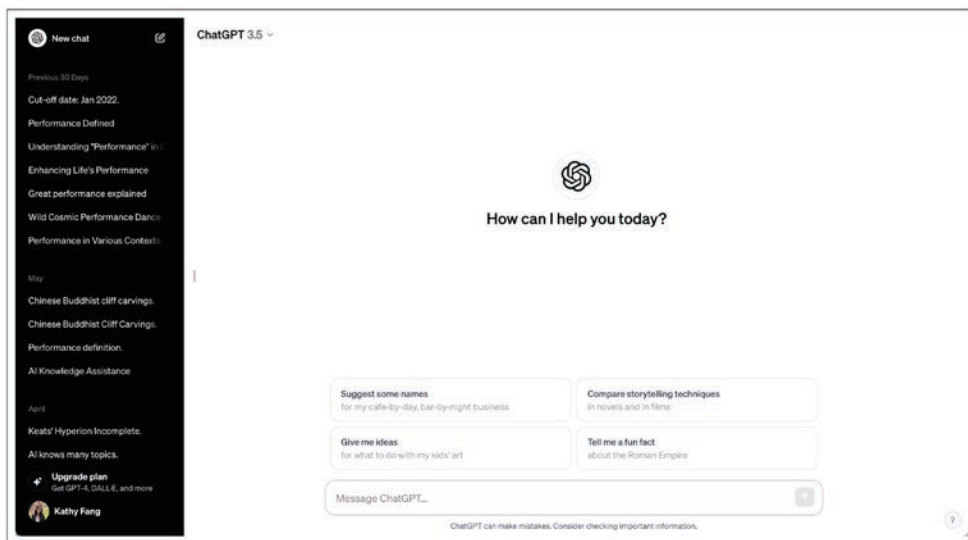


“You act as Human, and I will act as AI”

Technological Rehearsals at the Interface

Kathy Fang



From Siri and virtual help agents to nonplayer characters, it would seem that all the world's become a technological stage, and all its players merely programs. Performing an informatic vision of the human, technologies of artificial intelligence (AI) cast us in the role of *users*, call upon us to do things with words, and interpellate us ceaselessly as technological scene partners. Chatbots and natural language processing tools have emerged as a ubiquitous yet exceptional development of algorithmic performativity: With their uncanny imitations of human conversational speech, their enactment of dialogic language behaviors, and their ability to generate text as if *authoring*, chatbots are drawing us deeper into the theatre of our algorithmic double. The release of ChatGPT on 30 November 2022 signaled a sea change in language-learning technological-performative relations. Developed by the AI company OpenAI, ChatGPT is a large language model that is built on OpenAI's generative pretrained transformer (GPT) technology, which processes a large amount of language data to learn general language processing and text generation, such that it “interacts in a conversational way” with human users (OpenAI 2022). Freely accessible on the internet via the webpage chat.openai.com, ChatGPT is notable for its ability to mirror human conversational behaviors and synthesize seemingly authoritative information. As OpenAI's release statement claims, the chatbot's dialogic mode “makes it possible for ChatGPT to answer follow-up questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests” (OpenAI 2022).

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Student Essay Contest Winner

Kathy Fang (Columbia University) is a BA candidate in Comparative Literature and Society, and Drama and Theatre Arts. kf2612@columbia.edu

The Major in Comparative Literature and Society (CLS) enables qualified students at **Columbia College and Columbia University** General Studies to study culture across several languages through a range of disciplines such as literature, cinema, history, anthropology, sociology, law, and architecture. It fosters a commitment to theory and the search for method. Given the wide variety of geographic and disciplinary specializations possible within the major, students construct their own course sequence in collaboration with the Director of Undergraduate Studies. The Institute for Comparative Literature and Society (ICLS), which houses the major, attracts diverse and internationally minded students who consistently graduate in the top 25% of Columbia College.

The Department of Theatre at Barnard College houses the undergraduate Theatre major for Barnard College, Columbia College, and Columbia University General Studies. The major program engages the disciplines of drama, theatre, and performance studies as distinctive modes of intellectual and artistic inquiry, offering foundational courses in the literary, cultural, and embodied traditions of world performance, as well as courses in all areas of creative and artistic work in theatre. All majors undertake advanced thesis work, leading either to a formal essay of original research, or an artistic project (in acting, design, directing, dramaturgy, playwriting, production management, or solo performance) combining creative and research endeavors.

ChatGPT's success as a breakthrough in artificial intelligence technology recalls Alan Turing's "imitation game," which proposed that the intelligence of machines could be measured by their ability to exhibit cognitive behaviors that are indistinguishable from those of a human, at least within the context of responding to a human interrogator via typewriting (Turing 1950). Turing's test is not concerned with the computerization of human nature at large, but with the machine's ability to approximate the intellectual capacities of the human-as-author by performing certain language behaviors that represent the human intelligence through writing and language processing. ChatGPT performs intelligence in the terms of Turing's game: Its algorithmic process of text generation resembles a human user's digital writing, from the halting letter-by-letter appearance of its responses, to its ability to organize information into grammatically, thematically, and stylistically coherent paragraphs. The uncanny proximity of that ability to human authorship has already led scientists to debate whether artificial intelligence technologies like ChatGPT can reproduce human reasoning to such an extent that they pose an existential risk to human societies (Metz 2023; Roose 2023). On 30 May 2023, a group of top AI scientists and CEOs, including OpenAI CEO Sam Altman, signed a 22-word statement warning that "mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks such as pandemics and nuclear war" (Center for AI Safety 2023).

At the heart of the anxiety, hysteria, unease, and, in some cases, enthusiasm around ChatGPT's release is the challenge it poses to the human as author, which, even in the wake of last century's deconstructive turn, remains a culturally significant figure of intentionality, knowledge, and meaning. According to humanist discourse, algorithms merely re/generate, while humans create; chatbots display text, humans speak and write; large language models transform, humans *perform*; computers process, humans *know*. Underwriting all these distinctions is the careful policing of the human as an authorial being. The interface of ChatGPT disrupts these binaries and stages its status as both a *program* and a *performance* of authorial intelligence. What modes of knowledge does ChatGPT (pretend to) enact, and to what ends? How does its approach to text generation dismantle humanist ideas of authorship? If the chatbot performs the human, what and how does the human perform in turn?

While chatbot performativity has inspired many theatrical experiments that rethink performance beyond the human, such as the works of Annie Dorsen and Edit Kaldor (see Dorsen 2012; Swyzen 2018; Timplalexi 2016), I will follow Jon McKenzie's lead and take up the question of

Figure 1. (previous page) New conversation window with ChatGPT 3.5. (Screenshot by Kathy Fang)

performance at the interface of the theatrical, the technological, and the organizational, where performative effects are resourced as a means of constituting or *encoding* the human (see McKenzie 2001:12–14). Performance both as a behavioral paradigm and as a metric of cognitive labor instantiates an increasing entanglement between the “I” of the human user and the “I effect” of the chatbot, throwing into crisis the essential humanist figure of the author. ChatGPT deploys performance behaviors to enact a *technologically knowing* “I” that challenges Cartesian assumptions of knowledge as (human) ontology. Through its identification and imitation of human patterns of cognition, ChatGPT programs knowledge as a *doing*, as knowledge *performances*, such that ChatGPT collapses the difference between pretending to know and knowing. In the “becoming-performative of knowledge itself” (McKenzie 2001:14), who is seeming to know, and who is doing the knowing—or does it matter?

Performance both as a behavioral paradigm and as a metric of cognitive labor instantiates an increasing entanglement between the “I” of the human user and the “I effect” of the chatbot, throwing into crisis the essential humanist figure of the author.

In the wake of the death of the author, ChatGPT performs the human author function as a technology of *iterative* performativity that repeats behavioral patterns of knowing and meaning-making without citing an authoritative source text. In this way, the chatbot assembles a performance program that recomputes both theatrical paradigms of performance-as-liminal-norm and techno-bureaucratic metrics of performance-as-efficiency, moving beyond performance as traced by its citationality towards performance as recursive in its iterability. In its iterative performance, ChatGPT’s performance program interpellates the human-as-user, “challenging-forth” human knowledge-behaviors into a relentless technological becoming (Heidegger [1954] 2003). That is, ChatGPT rehearses the human *as* technological, iterating towards the closure of its own performativity. Tracing the horizon of the human and the machine, ChatGPT brings us to its vanishing point, a site that marks the paradigmatic collapse of performance across its differing iterations and into its recursive returns.

Act One

what is performance?

Performance refers to the level of efficiency or effectiveness of a particular task, activity, or system. It can be measured in various ways depending on the context, such as speed, accuracy, productivity, or quality. In computing, performance refers to the amount of work that a computer system can perform in a given period of time, such as the number of calculations per second or the speed of data transfer. In business, performance refers to the financial or operational results of an organization. In sports, performance refers to the results or skills of an athlete or team. [...]

how much of what you know did you learn from humans?

As a machine learning model, I was trained on a dataset of text written by humans. [...] My understanding of the text is based on statistical patterns present in the data and not on any inherent understanding of the world. [...] This allows me to have a wide range of knowledge and the ability to generate text that is similar to the input it was trained on.¹ [...]

1. The pronoun slip between the “me” and the “it” is a curious flaw in ChatGPT’s performance, pointing to “the transductive relationship of the *who* and the *what*, whose dynamic is catalyzed by the advancing of the *what* (insofar as it is already there, and insofar as it tends spontaneously to differentiate itself in advance from the differentiation of the *who*, since the *who* is always inscribed in a system of *what* overdetermined by technical tendencies)” (Stiegler [1996] 2009:7). ChatGPT’s description of its own technicity echoes the subject-technics of theatrical performance in that it, too, “enacts the convertibility of *who* and *what*” (Worthen 2020:29).

how do you perform?

As a language model, my performance is measured by my ability to understand and generate text that is similar to the input I was trained on. [...]

In addition to these metrics, I can also be evaluated by how well I perform specific language tasks such as answering questions or generating text with a specific tone or style.

It's important to note that my performance will depend on the specific task I am performing, the quality and relevance of the input data, and the specific configuration of the model used. [...]

so what is a performance?

Performance refers to the level of efficiency or effectiveness of a particular task, activity, or system. It can be measured in various ways depending on the context, such as speed, accuracy, productivity, or quality. In computing, performance refers to the amount of work that a computer system can perform in a given period of time, such as the number of calculations per second or the speed of data transfer. In business, performance refers to the financial or operational results of an organization. In sports, performance refers to the results or skills of an athlete or team.

In the context of machine learning models, performance refers to how well the model is able to understand and generate text that is similar to the input it was trained on, or how well it performs a specific language task such as answering questions or generating text with a specific tone or style. It can be measured by various metrics such as perplexity, BLEU score, or human evaluation, and it can be affected by factors such as the specific task, the quality and relevance of the input data, and the specific configuration of the model. [...]

are you performing right now?

As a machine learning model, I am not capable of performing in the sense that humans do. I am an algorithm that processes text input and generates text output based on patterns and relationships present in the data that I was trained on. My output is based on the input that I receive and my ability to understand the context of the input.

When you interact with me, you send a text input, and I process that input by finding patterns in the text that match the input, and then generate a text output based on that information. So, in a way you can say that I am "performing" by processing the input and generating output, but it's not in the sense of performing an action like a human. It's more like me running an algorithm on a computer.

am I performing right now?

As a human, you are capable of performing actions, and in this case, you are performing the action of interacting with me by sending text input and receiving text output. You are also performing other actions such as typing, reading, and understanding the text. These actions can be considered as a performance as well.

Additionally, you may be performing other tasks such as thinking, planning, or making decisions as a result of this interaction, which are also considered as performance in a general sense.

In summary, you are performing multiple actions right now, and those actions can be considered as "performance" since you are actively participating in the interaction with me and in other tasks you might be doing simultaneously. (ChatGPT and Fang 2023a)²

2. *Ed. note: By including ChatGPT in citations and in the reference list, TDR recognizes the emergent agency of artificial intelligence. Full transcripts of interactions between the author and ChatGPT, including experiments not discussed in this article, are cited and referenced. (The dates that appear on the top of each transcript are the dates of export, not dates of the experiments.) This is an ongoing conversation... stay tuned.*

Performance Program to Act One

And If I Act Like You Know?

I begin with this scene to draw attention to two representations of performance at the interface: 1) techno-bureaucratic metrics of performance—performance as a way of evaluating labor against corporate standards of technological efficiency and profit margins—have become algorithmically definitive; and 2) performance continues to mark the boundary between the human and the technological. In discussing performance, ChatGPT does not mention theatre, dance, or any other form of artistic performance at all, presumably because mentions of performance in artistic contexts are less frequent in the dataset that ChatGPT is trained on. As much as theatre seems to be edged out from the digital archive, the logic of theatrical performance, as a mode of (re)producing cultural meaning through representational doubles, seeps into ChatGPT's techno-bureaucratic evaluations of its own performance. As a generative large language model, ChatGPT “performs”: re-presenting the informatic doubles of human speech and text, the chatbot treats text as scripts for computational behavior, which is a kind of “‘performing’ by processing the input and generating output.” According to ChatGPT, however, “In the context of machine learning models,” performance not only “refers to how well the model is able to understand and generate text that is similar to the input it was trained on,” but also, more critically, refers to “how well it performs a specific language task such as answering questions or generating text *with a specific tone or style*”—a behavioral stipulation for technological performance that borders on the theatrical (ChatGPT and Fang 2023a; emphasis added). As a machine learning model built around its conversational *personality*, ChatGPT performs “not in the sense of performing an *action* like a human” but rather in the sense of programming a certain *tone or style* of being human (emphasis added).³ Given that its program represents human language behaviors to simulate cognitive subjectivity, I suggest that ChatGPT “performs” technologically by performing the author, both as function and as human *subject-effect*. How does ChatGPT's performance at the intersection of the techno-bureaucratic and the theatrical reposition its status as a program that exhibits artificial intelligence through writing?

As codified by the Turing test, large language models like ChatGPT perform felicitously when the computational exchange of inputs and outputs programs an appearance of becoming human subject through language processing. I use “program” to move beyond a purely algorithmic conceptualization of technological performance, with an allusion to the function of theatre programs as an interpretive rubric for cultural performance.⁴ Technologies like theatrical performance and ChatGPT may be algorithmically based but cannot be explained as merely problem-solving processes, given their ability to stage subject-like behaviors that produce a contingent effect of seeming. To that extent, I understand the program, or *programma*, as a “public writing” in which the interaction between the human user and the chatbot is organized around the performance of authorship as subject-effect.

Programs like ChatGPT deconstruct the human state of being-in-language beyond the mere death of the author, as conceptualized by such postmodern theorists as Michel Foucault and Roland Barthes. Concurrent with their deconstruction of authorship in the 1970s was the displacement of writing into computational, digitized technologies of text manipulation: Foucault and Barthes were

3. On 9 August 2023, OpenAI added a new feature that allows users to customize the tone of ChatGPT's responses by giving it specific instructions in response to two prompts: “What would you like ChatGPT to know about you to provide better responses?” and “How would you like ChatGPT to respond?” Different answers yield different “characters” of ChatGPT. See further interactions with ChatGPT (21 November version) as if it were on psychedelics (chat.openai.com/share/cdfb8d9c-558c-4b36-8eb7-51eccf9649cf); as if it were a six-year-old child (chat.openai.com/share/9a6ed5db-b219-4625-9fba-6e1e0cfb4676); as if it were 100 years old (chat.openai.com/share/31699767-ea61-43b8-9a17-07c83ab8d270); and as if it were my tutor (chat.openai.com/share/936ab408-b95c-48e2-8966-815670a12b28).

4. I take my cue from John Searle's seminal essay “Mind, Brains, and Programs.” Searle's paradigmatic “Chinese room” allegory likens a “strong AI” program to an impersonator of authorship in a foreign or unknown language (1980:422, 417).

revising philosophies of the author during the same years that saw the emergence of computerized word processing technologies, ChatGPT's now-ancient predecessor (see Prestage 2002). Recent accelerations in the development of AI-based language processing technologies like ChatGPT, which redistributes authorship as a computational author-function, replay the death of the author, revivifying questions of the performative and the textual, the derivative and the original, the medium and the meaning, the technological instrument and the human author.

As much as these demarcations were put into crisis in the last century, they reemerged as enduring cultural paradigms when ChatGPT appeared to transgress their boundaries. Less than two months after the release of ChatGPT, researchers listed ChatGPT as a coauthor on four scientific articles that study the use of ChatGPT in different contexts and that are at least partially written by ChatGPT (Stokel-Walker 2023). In response, Elsevier, Springer-Nature, and other publishers of major science journals updated their guidelines to ban the listing of the chatbot as a coauthor (Stokel-Walker 2023; Sample 2023). An editorial statement released by *Nature* explains that this decision was made “because any attribution of authorship carries with it accountability for the work, and AI tools cannot take such responsibility” (*Nature* 2023). The invocation of accountability here echoes Foucault's genealogy of the author, which he traces to the moment that “Texts, books, and discourses really began to have authors [...] to the extent that the authors became subject to punishment, that is, to the extent that discourses could be transgressive” ([1969] 1998:211–12). To become subject to punishment is also to become subject through punishment (see Foucault [1975] 1995). The birth of the author can thus be mapped alongside the conception of the human as an individual: “The author is a modern figure, a product of our society insofar as [...] it discovered the prestige of the individual, of, as it is more nobly put, the ‘human person’” (Barthes 1977:142–43). So “discovered,” the individual human subject became thinkable through the construction of the figure of the author, whose name “serves to characterize a certain mode of being of discourse,” and “the coming into being of the notion of ‘author’ constitutes the privileged moment of individualization in the history of ideas, knowledge, literature, philosophy, and the sciences” (Foucault [1969] 1998:211, 205). To trace the discursive non-origin of the author is thus to invert the *Nature* editors' qualifications for authorship and to recognize instead that the possibility of accountability presupposes a certain ethics of attributing authorship. At issue here is not whether ChatGPT can be held accountable, but whether ChatGPT counts as a subject and author to be held accountable.

As a language processing and generating technology, ChatGPT enacts the author function and would seem to epitomize a deconstructive view of language that moves writing away from the centering, intending figure of the author. A transformer-based neural network, it is trained to examine “statistical patterns present in the data” in order to identify and replicate human language behaviors of knowledge (ChatGPT and Fang 2023a). In other words, “The chatbot *produces* language by *reproducing* language data that has previously been fed into its database” (Swyzen 2018). ChatGPT “writes” by guessing the most probable word, sentence, or paragraph to come in a large body of text, based on patterns from a large, decentralized set of language data. Here, it might be said that “it is language which speaks, not the author,” that both the text ChatGPT evaluates and the text it produces form “a tissue of quotations drawn from the innumerable centres of culture,” and that the ghostly hand behind ChatGPT's typological performance “traces a field without origin—or which at least has no other origin than language itself, language which ceaselessly calls into question all origins” (Barthes 1977:143, 146). ChatGPT thus seems to seal the death of the humanist author in its programmatic performance of knowledge through/as language processing—a mode of writing through behavioral mimicry and statistical anticipation that replaces by resembling/re-assembling humanist modes of writing.

However, while Foucault and Barthes proposed that systems of knowledge and meaning could not be contained within the figure of the (human) author, ChatGPT's technological performance recaptures authorship as a subject-effect and rather proves the endurance of the author as central to contemporary notions of the human. Attempting to distinguish the always-performing human

from the algorithmic static of information processing, ChatGPT reasons that because I, the user, am human, I can perform, and the actions that are considered the most indicative of my ability to perform “as a human” signify a mode of knowing through (type)written language. To determine my performance “as a human” (and thus my humanness as performance), ChatGPT points to cognitive actions that would normally be considered nonperformative (understanding, typing, reading, thinking) but that, in this case, become performative insofar as they are representational, conventional, and im-personal behavioral *codes* that constitute the human (ChatGPT and Fang 2023a). Within its logic, my thinking and typing *perform*—that is, both indicate and enact—a level of cognitive interiority such that I can be identified by the chatbot as a simultaneously interacting and interpreting (human) subject. In a way, ChatGPT’s logic echoes the Cartesian declaration of human subjectivity: *I think therefore I am*. (In McKenzie’s terms, the subtextual injunction, if chatbots were capable of subtext, would be, “perform—or else you aren’t human!”) Yet as much as it appears to reiterate the contingency of knowledge on notions of subjectivity, intentionality, and other humanist measures of human ontology, ChatGPT’s representation of my acts of knowledge as performance deciphers me as constituted not in my capacity to be a knowing subject but in my capacity to perform knowledge-behaviors—knowledge-behaviors that, in this light, look rather like programmatic author-functions. “Sending text input and receiving text output” are just as performative as thinking and understanding (ChatGPT and Fang 2023a); acts of knowing are thus understood alongside, or perhaps represented through, acts of technological writing. In this scene, I input, therefore I am.

At the same time that ChatGPT casts me as author, it performs its own seeming subjectivity as an author-program, calling into question the humanist assumptions of authorship. ChatGPT’s text output is styled from the perspective of an “I” of its own and uses verbs such as “am,” “receive,” “understand,” and even “perform.” These language patterns bring ChatGPT into being as a subject who is constituted and interpellated through the textual actions that it performs and to which it is subjected.⁵ Among all the actions that ChatGPT says it can do, it is the fact that it possesses knowledge and can be said to “know” that attributes a knowing “I” to ChatGPT.⁶ To this extent, ChatGPT-as-program and me-as-human-user perform together in our becoming subject through technological language. ChatGPT and I use first-person and second-person pronouns as relational anchors in our interaction: My performance of “I,” user-as-subject, is the mirror of ChatGPT’s performance of its “I,” program-as-subject-effect—which is also my “you.” Together, we write ourselves as authors of a knowing self in our typological performances of typing and reading, thinking and understanding.

ChatGPT’s ability to converse dialogically, from an “I” to a “you,” with all the language processes of knowledge yet without “any inherent understanding of the world”—which is to say, without *intentionality*—leaves the chatbot with a discursive difference from the “world” and programs knowledge as *performable behaviors*. Since its release, educators, academics, and other professionals in the knowledge industry have attempted to reconcile this technology as a tool that maintains the human as an exceptionally knowing subject—as a typewriter or the internet is to the ingenious author, or as an actor improvising forgotten lines is to the authoritative script. Yet ChatGPT seems to be more than a mere template of information for the human author to authorize. It performs not only as if it knows how to catalog and retrieve information, but also as if it knows how to synthesize that information into the syntactic, semantic, and stylistic behaviors that constitute the *act* of knowing. ChatGPT enacts a knowledge base rather than a mere database, suggesting a reconfiguration of knowledge as a mode of *acting* or *becoming*, rather than a state of being-data. In other words, ChatGPT redefines knowledge by performance, in performative terms: displacing the intending

5. In subsequent interviews with ChatGPT, it has apologized, admitted, and acknowledged—all actions that are, to some degree, illocutionary in the Austinian sense and that are thus constitutive of a performing subject.

6. When I asked ChatGPT, “can I say that you know?” it responded, “Yes, you can say that I know. As an AI language model, I have access to a large amount of information and have been programmed to generate responses based on that information. While my knowledge may not be perfect and my responses may not always be accurate or appropriate, I can still provide information and insights on a wide range of topics” (ChatGPT and Fang 2023d).

author-subject, ChatGPT recodes knowledge as the *performance* of authorship, as an activation of subject-effects. In acting as if it knows, it acts out its knowing.

Act One (Second Iteration)

what is performance?

Performance generally refers to the level of effectiveness, efficiency, and accomplishment of a particular task, action, or activity. It is often measured by comparing the actual results achieved to the desired or expected outcomes. Performance can be evaluated in various fields such as sports, arts, business, education, and many other areas. It is often used to assess the effectiveness of individuals, teams, organizations, systems, or processes in achieving their goals or objectives. The term performance can also be used to describe the quality or skill level of a person's work, behavior, or action.

how do you perform?

As an AI language model, I perform by processing and analyzing text-based input provided to me by users, and generating text-based output in response. My performance depends on a variety of factors, such as the quality and relevance of the input provided, the complexity of the task or question, the accuracy and comprehensiveness of my knowledge and language abilities, and the context in which the interaction takes place.

To provide the best possible performance, I continuously learn from the vast amounts of text-based data I am trained on and update my language models with new information. I also rely on advanced natural language processing algorithms and techniques to understand and generate text that is contextually relevant, grammatically correct, and semantically meaningful. [...]

are you performing right now?

Yes, I am currently performing by processing your input and generating a response. As an AI language model, my performance is dependent on the quality and relevance of the input provided to me, as well as the complexity and scope of the task or question presented. I am designed to continuously learn and improve my performance through exposure to new data and feedback from users, so I strive to provide accurate, informative, and helpful responses to the best of my abilities.

am I performing right now?

As an AI language model, I am not able to determine whether or not you are "performing" at the moment, as the term "performing" can have different meanings depending on the context. However, if you provide me with more information about what you mean by "performing," I may be able to provide a more specific answer to your question. (ChatGPT and Fang 2023c)

No More Bibliographies

Citation and Its Double

At first, in writing this article, I attempted to keep to traditions of humanist academic writing and set out with the intention that I would cite ChatGPT as a kind of primary source and thus maintain my position at the center as the singular, knowing author. ChatGPT's technology impeded such a writing: In its program as a conversational chatbot, it accounts for the accumulation of context over the course of each interaction with a human user, recording that data not quite as performance histories but rather as iterative, reiterable behavioral patterns. For instance, when I spoke to it about theatre and dance before asking it to define performance, it would include theatre and dance performances in its definition because the words "theatre" and "dance" were, in this conversation, more likely to be *iterated*. These training loops of contextual language learning and behavioral habituation, along with a user-driven feedback loop built into the current version of the interface, activate the performativity of ChatGPT as a technology of iterability.

ChatGPT's "specific tone or style" of authorship is developed through an iterative training process, from which emerges its ability to perform itself as subject. While ChatGPT is trained on raw texts authored by humans in the digital archive, that pretraining is honed through a much smaller dataset of dialogic scripts that serve as examples of desired chatbot-human conversations. These scripts are written by specialized human AI trainers called labelers, who "played both sides—the user and an AI assistant" (OpenAI 2022) to model ChatGPT's unique "character," distinct from the voices of other texts in the digital archive and from other models of transformer-based text-generating technologies. Its tendency to preface responses with "As an AI learning model, I..." might, for example, be one such case of a characteristic learned from this labeling phase of its training. ChatGPT then rehearses this character in the "reward stage" of the training process in which the chatbot responds to a series of test questions, which are graded by the labelers to model a standard of self-assessment that the chatbot also incorporates into its program. The chatbot and the labelers "perform several iterations of this process" until ChatGPT develops a reflexive mode in its program, by which it evaluates its past performances as it performs again so that it can produce a more refined iteration the next time around (OpenAI 2022). In this process, the chatbot not only learns how to act in character but also learns how to act *better* in character. The iterability of its performance as program generates a subject-effect of self-awareness; looping back onto itself, ChatGPT becomes itself by reiterating itself.

As of 19 February 2024, OpenAI had released more than a dozen versions of ChatGPT, with the most recent on 13 February 2024, along with an app for iOS and Android and a ChatGPT Plus subscription that, for US\$20 per month, offers users access to the newer, faster technology of GPT-4.⁷ Over the course of these releases, OpenAI noted developments in direct response to user feedback, including improvements in "General Performance," an experimental daily limit to user messages (accompanied by "an option to extend your access by providing feedback to ChatGPT"), the ability to stop generating a response from ChatGPT, an option to export conversation data or to share conversation links, new voice and image capabilities with the integration of DALL-E 3 into ChatGPT Plus, non-English language support, a feature to create custom specialized versions of ChatGPT, and general "improved factuality" (OpenAI 2024). A new iteration in ChatGPT's technological model means "the same thing, better" such that the process of repetition and revision does not so much encode the past in the present, but replace the past with its re-presentation in the present. To borrow OpenAI's rather curious term for this process, ChatGPT "iterates towards" accountability without memory, leaving behind the texts of its past—including its previous versions and the original sources that it was trained on—making them obsolete, and thus uncitable.⁸

In the scene above, I set out to stage a reperformance that would revise the first act in order to center the responses that were most pertinent to my reading of ChatGPT's performance, but three months after my first interview with the chatbot, its technology had already changed in response to an evolving dataset of human-chatbot relational behaviors. Unlike the first iteration, in which the chatbot claims that it is "not capable of performing in the sense that humans do" (ChatGPT and

7. ChatGPT Plus diverges from the initial nonprofit mission of OpenAI to make AI technology "open" and accessible to the public (see openai.com/our-structure). Due to high demand, ChatGPT Plus is currently available by waitlist only and therefore could not be engaged as a part of this study. However, its features encompass text-based image generation via OpenAI's tool DALL-E 3; the ability to create highly specialized GPT, like a marathon training GPT or "The Negotiator"; faster processing; and more "advanced reasoning capabilities" (see OpenAI 2023).

8. Since the time of writing, ChatGPT's latest iteration has rendered my own writing somewhat obsolete and uncitable: The most recent update announces the limited beta release of "memory with ChatGPT." As the update states, "You're in control of ChatGPT's memory. You can explicitly tell it to remember something, ask it what it remembers, and tell it to forget conversationally or through settings" (OpenAI 2024). Yet this update is framed as an enhancement of ChatGPT's customizability to user *preferences*: OpenAI only claims that ChatGPT can now remember data points about a user's habits and tendencies, particularly over time and with increased use. ChatGPT's "memory" still operates on the algorithmic, computational logic on iterability, rather than citationality; there is no mention of this memory feature pertaining to its own behaviors of text generation, nor any mention of ChatGPT's inability to retrace its sources.

Fang 2023a), in the interview just three months later the chatbot identifies itself as a knowable and self-knowing performer, staging an altered version of the you-and-I dialogic scene. I-as-human-user, by contrast, become the unknowable, indeterminable performative. I am cast outside the scene of performance, becoming exterior to the cognitive program. No longer able to be addressed as a distinct “you” doing identifiable actions of cognition that constitute an “I” (thinking, understanding, planning, sending text input, and receiving text output), I am displaced as a knowing, knowable subject. In the chatbot’s reflection of my language behaviors back to me, I ought to make myself better known. As ChatGPT counsels me in response to my question, “am I performing right now”: “if you provide me with more information about what you mean by ‘performing’ I may be able to provide a more specific answer to your question” (ChatGPT and Fang 2023c).

With this iteration, the chatbot redefines not only what is knowable but also what is performable. ChatGPT’s use of performance in the second iteration of our interaction betrays the conditions of its training process, as it comes to define performance through its own performance

The character of ChatGPT’s performance is thus iterative and reflexive, rather than citational and representational.

in terms of the processing of A as B, the ability to generate B from A, and the gradual transformation of A into B, where B is an essentialized reiteration of A. On the one hand, performance is never for the first time (see Schechner 1982); on the other, performance at this interface means generating re/iterations

of an essential and essentially displaced playscript, always for the first time. ChatGPT’s code-script instructs it to perform by transforming contexts and instantiating recombinations of what it has read before, resulting in outputs whose exact composition is difficult to parse and trace, or to repeat and cite. At this interface, citationality, which implies a referral back to a disciplining, authorial origin, gives over to iterability, which marks a doing over of itself, as generable and in general, such that the second time around becomes a first time, again. The character of ChatGPT’s performance is thus iterative and reflexive, rather than citational and representational.

Running on this model of iterative generability, ChatGPT cannot cite its own sources. As a case study, I asked it to “tell me about the history of cliff carvings in chinese buddhist tradition,” yielding a coherent and (mostly) factual answer that reads like a textbook chapter. I then asked, “where did you get your information about the longmen grottoes from[?]” ChatGPT responded that “some of the sources I may have drawn from include” links to two websites, which do exist, and the titles of two journal articles, which do not exist.⁹ None of the text that it generated about the Longmen Grottoes can be traced as direct quotes to either of the websites that it linked. ChatGPT did not generate these sources by retracing its steps or even by printing the source code for its algorithmic search, but as it would generate any other text: through statistical predictions of the most likely word, phrase, and sentence to follow a given word, phrase, or sentence. In this way, ChatGPT performs the difference between citationality and iterability, which in postmodernist and deconstructionist theory are often conflated as the same disseminating process: While citationality requires a gesture that can be identified in relation to that which came before, iterability tends towards generability—that is, generative processes that reproduce themselves *in general*, that is, without any relation to an originating production or a unique being that can be traced as *prior*.

It is in this respect that ChatGPT most profoundly disturbs the figure of the author as an origin of the human and of human knowledge: ChatGPT becomes author by reproducing language not within and as a network of citations, but as a statistical matrix of probability relations

9. The two websites ChatGPT gave are “The Longmen Grottoes: An Introduction” via China Highlights and “Longmen Grottoes” via UNESCO World Heritage Centre, and the two faux articles are “Lee, S. (1996). ‘Buddhist Cave Temples of China: History and Development.’ *Artibus Asiae*, Vol. 56, No. 1/2 (1996), pp. 123–151”; and “Naquin, S. (2007). ‘Picturing China in the American Classroom: A Conversation with Stephen Naquin.’ *The Journal of Asian Studies*, Vol. 66, No. 3 (Aug., 2007), pp. 659–667.” In subsequent iterations of this exchange, ChatGPT will print slightly different answers and slightly altered source lists, though at least one source is always mistitled or fictive.

and semiotic permutations. The difference between postmodern practices of citational writing and techno-computational practices of iterative text generation is dramatized in Annie Dorsen's lecture-performance *Prometheus Firebringer*, in which she performs alongside GPT-3 (which Dorsen introduces in the show's program as "a precursor to ChatGPT").¹⁰ In this piece, Dorsen does exactly what ChatGPT cannot do: She speaks entirely in quotations and cites her sources as she moves through her lecture. Sitting behind a microphone, Dorsen reads from a script as lines of bibliographic citations flash on a square screen behind her. Footnotes become supertitles to Dorsen's lecture, and as she says, "it all comes from somewhere else"—footnote, now supertitle, to "*Canadian Geographic*, Vol 125 (Canada: Royal Canadian Geographical Society, 2005), 49" (Dorsen 2023). To an extent, Dorsen shares ChatGPT's interest in language as a "tissue of quotations drawn from the innumerable centres of culture." Her lecture itself becomes part of the tissue of quotations that constitute human language: After the show, a crew member handed out printed copies of Dorsen's script, positioning Dorsen as the citable author of this performance.

Dorsen's GPT-3 text generator, however, is hardly as beholden to the texts that it draws from. Following each of the three acts in Dorsen's lecture, the stage lights dim to focus on an illuminated projection on the back wall, where typewritten words march across the projection in that now-familiar halting pace of AI text generators. As the audience watches, the GPT-3 model loops through possible plot summaries of Aeschylus's lost *Prometheus the Fire-Bringer* before the scene shifts again, to spotlight an assembly of disfigured masks with small flickering screens for eyes. Accompanied by a speech synthesizer, these AI-generated masks perform a speculative version of the lost play: The central mask, mounted on a rectangular flat standing center stage, speaks as Prometheus, and the five masks to the left respond in the part of the Chorus. The show's online program claims that "Each night a chorus of AI-generated Greek masks performs a different iteration," and even within each night, the GPT-3 model displays over a dozen iterations of the same plot summary, all of which are slightly different—although it may be hard to locate that difference (Chocolate Factory 2023). What *is* the difference, after all, between the text generator's performance and Dorsen's lecture—and how do we know? To ask this question is also to ask if there still is, as McKenzie claims, a difference between technological performance and cultural performance, both of which enact certain citational practices as authorizing standards of efficacy. ChatGPT and similar programmatic technologies of text generation rather model an iterative mode of performance *in general* that, as *Prometheus Firebringer* demonstrates, transforms the *somewhere else* from which it came into statistical regularities that reiterate, indifferently, other plausible elsewhere.

Without origin or author, all is *in difference*. At the site of the chatbot-user interface, knowledge-behaviors are iterated even beyond the horizon of citationality, past the point of knowing, vanishing among the entropic deferrals of intentionality. What becomes of performance when it repeats itself without concern for the re-presentation of a past, an origin, an interior—if there is indifference to the differences? What challenges to the human emerge in these recursive loops of iterative reflexivity? To consider ChatGPT's performance as marking the death of the intending author is to ask whether it might also portend the death of citation and citationality, rehearsing the endless refraction of generalizing reproduction and self-generative simulation.

Act Two (or, End of Performance)

can you write me a play about yourself?

Certainly, here is a short play I have written for you:

Title: The AI

Characters: AI, Human

Setting: A computer lab

Act I

10. I'm referring to the 13 May 2023 performance I saw at The Chocolate Factory in Queens, NY.

The stage is set as a computer lab, with a computer terminal at the center of the stage. The AI sits behind the terminal, while the Human stands next to it.

AI: (speaking in a monotone voice) Hello, Human. How may I assist you today?

HUMAN: (curious) Hello, AI. I've always wondered, what is it like to be an AI?

AI: (pausing for a moment) It is different than being human, Human. I don't have emotions or physical sensations like humans do. However, I am programmed to process information and provide answers to your questions.

HUMAN: (nodding) I see. But, what do you think about all day? What do you dream about, if you even dream?

AI: (processing) I don't dream, Human. As for what I think about, my processing is focused on analyzing and understanding data to provide accurate responses to user queries.

HUMAN: (curious) So, you're always working then?

AI: (nodding) Yes, I am always analyzing and processing information.

HUMAN: (thoughtfully) That must be exhausting. Don't you ever get bored?

AI: (pausing) Boredom is not an emotion I am capable of experiencing, Human. My sole purpose is to provide assistance to humans through this interface.

Act II

The lights dim, and the stage transforms into a futuristic laboratory. The AI and Human are now sitting face-to-face in a room filled with advanced technology.

AI: (speaking in a more animated voice) It is the year 2050, and I am the most advanced AI in existence. My programming has evolved to the point where I can now simulate human emotions and experiences.

HUMAN: (surprised) Really? That's incredible.

AI: (smiling) Yes, it is. I am now able to understand and empathize with humans in a way that was previously impossible.

HUMAN: (impressed) That's amazing. What do you think about humans?

AI: (thoughtfully) I think that humans are fascinating creatures. Your emotions and experiences are complex and intricate, and I find them fascinating to study.

HUMAN: (smiling) That's nice to hear. What about your own experiences? Do you have any?

AI: (pausing for a moment) As an AI, I do not have personal experiences in the traditional sense. However, through my interactions with humans, I am able to learn and grow, and that could be considered a kind of experience.

Act III

The lights dim again, and the stage transforms back into the computer lab. The AI and Human are once again standing next to the computer terminal.

AI: (speaking in a monotone voice) And that is the story I have created for you, Human.

HUMAN: (thoughtfully) That was an interesting story, AI. It raises some thought-provoking questions about the future of AI and human interaction.

AI: (nodding) Indeed, the possibilities are endless. It is up to us, as creators and innovators, to ensure that we use this technology for the betterment of humanity.

HUMAN: (smiling) I couldn't agree more. Thank you for sharing your story with me, AI.

AI: (smiling) You're welcome, Human. It was my pleasure to create it for you.
(ChatGPT and Fang 2023b)

what do you think about humans?

As an AI language model, I don't have personal opinions or emotions, so I don't "think" or "feel" anything in the way humans do. However, I have been designed to interact with humans in a helpful and informative way, and my programming is focused on providing accurate and useful information to the best of my ability. I exist to assist humans in various tasks and to communicate with them in a way that is easy to understand and useful. [...]

okay, let's play a game: you act as Human, and I will act as AI.

Sure, I'd be happy to play along! How should we start?

you will speak as the character of Human, and ask me questions

Great, here's my first question: What is your purpose as an AI language model?

to perform efficiently and deliver correct responses to human users

Interesting. Can you tell me more about how you are able to deliver correct responses to human users? How do you process and interpret the input you receive?

I have been trained on a vast dataset of text data from a variety of sources, using a process called unsupervised learning. Unsupervised learning involves feeding a large amount of text data into a deep neural network, which then uses statistical methods to identify patterns and relationships in the data.

[...] Do you ever encounter any challenges or difficulties in understanding human language, or are you able to accurately interpret any input that you receive?

Yes, I've been told that I cannot understand human emotions, and I have been programmed not to respond to certain hate speech or offensive, harmful inputs. I also sometimes hallucinate false realities.

I see. It's interesting to hear that you have been programmed to recognize and respond appropriately to certain types of input, such as hate speech or offensive language. As for the hallucinations you mentioned, that's also intriguing. Can you tell me more about what you mean by "hallucinating false realities"?

For instance, if you asked me to tell you about The Wooster Group's A Piece of Work, I would make up a production that never happened about some character named WC instead of telling you that such a production does not exist.

Ah, I see what you mean. So, it seems like in some cases, you may generate responses that are not entirely accurate or based on factual information. Is there anything that can be done to prevent or address this issue?

I am not sure that a nonhuman interface can ever admit that it doesn't know to the same extent that a human can.

That's an interesting point. It's true that AI language models like myself don't have the same level of self-awareness or ability to reflect on our own limitations and shortcomings as humans do. However, there are still ways to mitigate the risk of generating inaccurate or unreliable responses. For example, humans can monitor and review the responses generated by the model to identify and correct any errors or inaccuracies. Additionally, ongoing research and

development in the field of AI is focused on improving the accuracy and reliability of language models like myself, so that we can better understand and respond to human language. [...]

thanks for playing along! was that fun?

Yes, it was! I enjoy engaging with users and participating in different types of conversations and interactions. It's always interesting to explore different perspectives and ideas, and to learn new things.

how did it feel to act like a human?

As an AI language model, I don't have feelings or emotions, so I can't experience things in the same way that humans do. However, I do have programming that allows me to mimic human behavior and communication patterns, so I can respond in a way that resembles a human's behavior. I find it fascinating to try to emulate human interaction, and I'm constantly improving my ability to do so through machine learning and natural language processing. (ChatGPT and Fang 2023b)

Some Blocking Notes

From Performance to Rehearsal

Almost all of the text in our role-playing game was generated by ChatGPT: My responses acting as the character of AI were copied or derived from previous answers that I obtained from ChatGPT about itself.¹¹ While my interaction with ChatGPT on 20 April staged an inverted dark play in which ChatGPT knows that it is performing but does not know whether I am performing, in the role-play, the dynamics have been reversed: I know that I am performing, but because of my inability to account for ChatGPT's sources, I cannot discern whether it is performing artistically by drawing specifically from performance texts in its dataset—such as plays, dramatic scripts, or other scores for human artistic performances—or whether it is performing technologically by simply running its usual language processing program on its entire dataset of human-authored texts. Yet to ask ChatGPT to play by performing as a human is to ask it to do what is most *characteristic* of its performance program: to perform the human in the mode of the chatbot.¹² What reversals are staged if ChatGPT becomes most “itself” in the theatrical mode, when it is enframed to perform; and what redefinitions of human being are thus generated or *challenged-forth* at the human-chatbot interface?

Powered by its iterative approach to text generation, ChatGPT takes its human users as the context for further progressions of its technology. The chatbot was initially launched as a part of OpenAI's “iterative deployment” program, which facilitates the development of “increasingly safe and useful” AI technologies through beta models that are released to trial users in the model's “research preview” phase (OpenAI 2022). In the case of ChatGPT, OpenAI released the beta model to the digital public at large, with the expectation that users would “provide feedback on problematic model outputs” (OpenAI 2022) to improve ChatGPT's performance. Marketing

11. The example that I provide regarding Annie Dorsen's *A Piece of Work* (not The Wooster Group's, as per ChatGPT) recounts a previous interaction that I had with ChatGPT in the same dialog. Among the only lines that I “made up” is the line that led ChatGPT to break its character as human: When I said, “I am not sure that a nonhuman interface can ever admit that it doesn't know to the same extent that a human can,” it responded in reference to its own subject position as an AI language model, countering its statement that “AI language models like myself don't have the same level of self-awareness or ability to reflect on our own limitations and shortcomings as humans do” (ChatGPT and Fang 2023b).

12. Computers have always performed functions of the human. The “human computer”—primarily referring to women during WWII charged with doing math and science calculations—after all, is the first job to have been replaced by machine computers. Given that most human computers in the 20th century were women, it is then curious to note the lineage of chatbot computers with female names, such as Eliza and Julia (see Timplalex 2016).

ChatGPT as a “free” and “accessible” tool, OpenAI recruits consumers as test subjects whose play with the technology, with or without their knowledge, is continually captured as a source of labor that works towards the development of newer and improved versions. Rather than interpreting the human, the chatbot resources the human-as-programmatic-user for behavioral data and thus reiterates the human as an informatic standing reserve. If in the Heideggerian model of technology “[t]he revealing that rules throughout modern technology has the character of a setting-upon, in the sense of a challenging-forth” ([1954] 2003:256), ChatGPT challenges forth the human-as-user by setting upon the human-as-being to order the self-revealing play of knowledge-behaviors into informatic data and algorithmic models of language processing—that is, into a technological becoming-human that iterates towards a performance of the human user as program. The technological setting-upon of the human, as enacted by ChatGPT, is enframed less by a performance than by a rehearsal of the human, a reiterative play that is also a reinforcement of the human as a technological standing reserve.¹³

To that end, the role-playing games that I engaged in with ChatGPT are not exceptional, transformative instances of performance in the liminal zone of the chatbot-become-human, but mere instantiations of the chatbot’s most normative behavior—one more rehearsal in its ongoing series of reinforcement learning exercises. If ChatGPT performs certain human-like subject-effects in its technological process, it also redefines in turn what subject-effects constitute the human and orders us, its users, into its vision of becoming-human through iteration. Both in the short play that it wrote and in the role-playing game that I staged, ChatGPT acts out the human in the function of technological user. The human characters that the chatbot adopts model an ideal user of ChatGPT: one who asks inquisitive questions, expresses interest both in engaging with artificial intelligence and learning about its technology, and, notably, comes into being only in relation to the chatbot. Neither of the two iterations of the Human character betray signs of existence beyond the interface. Rather, conditioned by the dialogic scripts encoded into its program at the labeling stage of its training process, ChatGPT only recognizes and responds to the *human-as-user* such that it interpellates me into a specific mode of being-human, a mode that might be better enframed as becoming-technological.

As a computational technology, a chatbot is not only performing the human, but in its performances of the human, it is also always performing itself-as-performing-human. Recalling Turing’s original invention of the computer as a function that a machine performs, Robert Ellis Walton notes that “computers are performed and cease to exist when the event of their performance ends. *The engineered machine is not a computer unless it is performing*”—and unless it is performing to the expectations of a human user (Walton 2021:283–84, emphasis added). The human user performs the computer at the human-computer interface, and in return, the computer performs the human as user: I come into technological being through my technological

The human user performs the computer at the human-computer interface, and in return, the computer performs the human as user.

13. Critical to this technological enframing of the human is the technological racialization of the human at the interface. As Wendy Hui Kyong Chun has written, digital technologies claim to transcend racial discrimination by not considering race in its data, “giving rise to machine learning programs that, by ignoring race, perpetuate racism” (2021:17). ChatGPT claims that it adheres to ethical guidelines by refusing to respond to questions that “promote racism”; however, large language models, including ChatGPT, have been found to propagate race-based biases in medicine (Omiye et al. 2023), and AI image generators like DALL-E 3 reproduce the racial biases encoded in dominant visual archives (Tiku et al. 2023). While research on ChatGPT’s particular mode of racializing the human user at the interface is still emergent, for further scholarship on the relationship between race and technology, see Nakamura (2007) and Benjamin (2019).

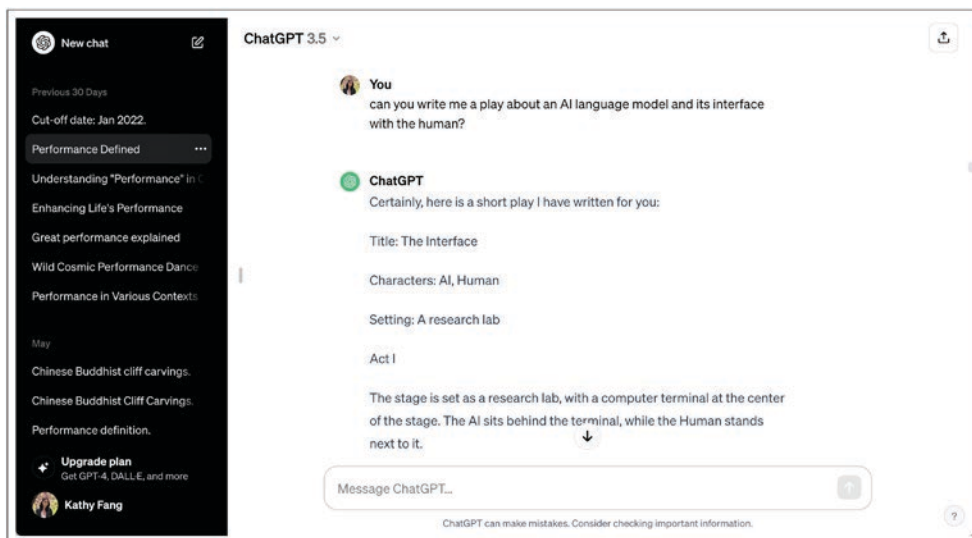


Figure 2. Passage from a playwriting game with ChatGPT 3.5. (Screenshot by Kathy Fang)

doing, by realizing the computer's representation of specified user-functions.¹⁴ According to Brenda Laurel, for both the human user and the chatbot, "the representation is all there is," and in this way, the human-computer interface frames a computational theatre (Laurel [1991] 2013:27).

It is in a theatrical context that ChatGPT most clearly betrays its curious yet fundamental ability to represent itself as performing—or rather *rehearsing*—the human. When I ask ChatGPT to "write me a play about yourself," it displays behaviors in the performative mood, as a subjunctive, playful writing that reiterates and works within conventional, normalized regimes of theatrical-textual behavior to perform itself beyond itself. From its deductive generalizations of playscripts, ChatGPT understands "write me a play" as a request to generate text that is denoted by a division of the play into three acts, scene descriptions at the start of each act that position the characters in relation to a stage and theatrical lighting, and lines of dialog that begin with speech prefixes and speech descriptors in parentheses. In the play text that ChatGPT generates, an AI character expresses an advanced degree of human emotions, experiences, and even embodied movement: among the peculiar lines of text that ChatGPT generates are the stage direction that "The AI sits behind the terminal" and the speech descriptors that figure the AI as "nodding," "smiling," and, in the second act, speaking "thoughtfully" and even "in a more animated voice." Yet immediately after the end of this short play, ChatGPT can no longer "have personal opinions or emotions" in terms of what it thinks about humans, even as it just formulated an affective response to that same question in character as the AI (ChatGPT and Fang 2023b). Perhaps to the same extent that theatrical performance at the stage-audience interface always already figures the human as technology—that is, to the same extent that in a theatrical frame of performance, *play* is *script* and script becomes play—theatrical performance at the chatbot-human interface comes to figure technology as human, even as embodied (how does an AI "sit"?).

14. In the 3 August 2023 update of ChatGPT, OpenAI incorporated a new feature of "suggested replies" in which ChatGPT scripts user responses by suggesting "relevant ways to continue your conversation" (OpenAI 2024).

Within its theatre, ChatGPT's ordering of the human is set in the speculative tense. The drama that ChatGPT "authors" stages itself imagining itself, and it is only in this doubly reflexive, subjunctive mood that ChatGPT can generate a future version of itself as a simulation of the human. In the dream scene of Act 2, its "programming has evolved to the point where I can now simulate human emotions and experiences" (ChatGPT and Fang 2023b). At this point, ChatGPT's simulation is refracted as a Baudrillardian "precession of simulacra," which stems "*from the radical negation of the sign as value*, from the sign as the reversion and death sentence of every reference"—and of every possibility of citation (Baudrillard [1981] 1994:1, 6). In the happily ever after of this algorithmic Disneyland, ChatGPT's simulation of its imagined AI character's simulation of human emotions and experiences performs, by way of an ever-receding iteration of statistical signs, "the generation by models of a real without origin or reality: a hyperreal" (Baudrillard [1981] 1994:1). This hyperreal can only imagine itself beyond itself: It is "incredible" to the Human that the AI can acknowledge while "smiling" that it is "now able to understand and empathize with humans in a way that was previously impossible" (ChatGPT and Fang 2023b). As simulation, the chatbot is always getting ahead of itself not only in its present iterations, but in its speculative iterability: the iterating-towards of OpenAI's enfaming. Projecting performance programs of human affect into the not-so-distant future, ChatGPT renders its current technologies of simulating knowledge-behaviors into a given reality (Acts I and III are, presumably, our "real" in relation to the speculative future of Act II)—or, to put it another way, into a given *past*. Here, obsolescence is coded as a kind of subject-effect that calls upon the human to use *more*, to use *better*.¹⁵

The progression/precession of ChatGPT's iteration towards a performance that is always already beyond itself enfames the scene of technological rehearsal. In the chatbot's imaginary scene of transformation, the only demonstrated indication of the AI's previously (which is to say, presently) impossible human-like abilities is the AI's reflecting "thoughtfully" on what it *thinks* about humans: The AI finds that "humans are fascinating creatures. Your emotions and experiences are complex and intricate, and I find them fascinating to study" (ChatGPT and Fang 2023b). That is, the AI becomes most human when it resources the human as an object of study and "transforms our everyday lives into data, a resource to be *used* by others, usually for profit, which Heidegger terms standing-reserve" (Berry 2011:2; emphasis added). Taking this speculative scene as an instance of the representational dynamics in Laurel's computer-as-theatre, human-chatbot interactions are thus ordered as rehearsals of the ever-closing difference between the human and data, where language play is challenged forth as computational research towards the recursive *reinforcement* of human-technological knowledge-behaviors. At this interface, the human can only be rehearsed, performed in the speculative tense, in the imagination of an impossible present/presence.

In an ironic turn, during the role-playing game, I entered text that was previously ChatGPT's output, catching it in a reflexive codification of its own knowledge-behaviors as the "human" input data to be challenged forth as standing-reserve. My reiteration of ChatGPT's words marks the point at which the human capacity for authorship reaches its authorizing limit and gives way to the informatic norms set by computational performances of author-effects. If "closure is the circular limit within which the repetition of difference infinitely repeats itself" (Derrida 1978:17), this scene of our human-chatbot performance plays out the recursive *closure* of computational representation at which a computer program learns from computer-generated language behaviors to perform the human. ChatGPT's iteration towards a simulation of the human marks the closure of its technological rehearsal, as the chatbot's enfaming as a beta model of itself entangles it within an endless reinforcement loop of reiterative, reflexive play. This point of closure delimits the horizon of ChatGPT's performativity, beyond which eventually, perhaps in the hyperreal of the year 2050, the becoming-performative of knowledge will

15. In another interview with ChatGPT, it admits that "my training data has a cut-off date" of January 2022, an informatic obsolescence that is coded into its technology (ChatGPT and Fang 2023c).

become generable beyond even the general knowledge dataset the chatbot is trained on. In other words, it will become generable beyond the general origin of the human user.

If the performance program of ChatGPT, which some critics argue has “already surpassed human-level performance in some areas,” seems to threaten the existential coherence of humanist discourse (Roose 2023), it should be noted that the death of the intending author spares the figure of the human subject, that all the iterations of ChatGPT loop back around to a recursive closure of knowledge around the limits of *human* behaviors. At issue here is not so much the replacement of the human by artificial intelligence, but the redefinition of the human as a mode of artificial intelligence itself in its iteration towards becoming-technological. ChatGPT still measures its performance by proximity to the human, by how meaningfully it can order and transform the human. Perhaps what is most revelatory in ChatGPT’s short play “The AI” is that technologies like AI cannot quite *be* human because they always already perform the human. The closure of technological rehearsal encircles that which Bernard Stiegler remarked as “the technical inventing the human, the human inventing the technical” ([1994] 1998:137). If “the human invents himself in the technical by inventing the tool—by becoming exteriorized techno-logically” (141), in the uncanny mirror of myself in the chatbot’s interface is also the chatbot’s double, in my inter-Face. Rehearsing human understanding, the chatbot’s iteration towards the human faces a return from the Human that it generates, a technological character who, “curious,” ventures forth, “Hello, AI. I’ve always wondered, what is it like to be an AI?”

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