

CHAPTER 22.

GENERATIVE AI CAN BE ACCESSED FOR FREE ✦ AI *POSES SIGNIFICANT HIDDEN COSTS TO INDIVIDUALS, SOCIETY, AND THE PLANET*

Whitney Lew James

University of Notre Dame

When OpenAI released ChatGPT, the service was free to the internet public. With a user-friendly interface and instant—if not always useful—responses, part of the immediate reaction to ChatGPT was that it was free. Many educators were concerned about the use of generative artificial intelligence (GenAI) to freely and easily cheat on fast-approaching finals. Alternatively, some business leaders lauded the accessibility of GenAI in opinion articles with bold titles like “Generative AI Can Democratize Access to Knowledge Skills” (Perri, 2023) and “Why generative AI could be society’s new equalizer” (S., 2024). These seemingly contradictory responses were both rooted in a feeling that generative artificial intelligence (GenAI) could be accessed for free. But, is artificial intelligence—generative or otherwise—ever truly free? The answer, of course, is no.

One of the most generative aspects of the release of GenAI is that it prompts us to ask big, existential questions. What does intelligence mean? How is knowledge produced? Who or what is an author? What is the value of writing? In this chapter, I explore two questions prompted by GenAI: (1) what does it mean for technology to be “free”? and (2) how can we think about “costs” in new ways? I suggest that rather than consider GenAI a quasi-free service we individually choose to use, we should consider the hidden costs that we pay as a global society. To this end, this chapter very briefly delves into the prices we all pay for generative AI in terms of individual privacy, workers’ rights, and environmental degradation.

HIDDEN COST #1: INDIVIDUAL PRIVACY

Each time we log in to a GenAI platform, we give technology companies a little bit

of ourselves in the form of information about our behaviors. For social media, web search, and other digital services to be free for users, we pay by contributing to tech companies' product development and data brokering revenue streams.

One way to quantify the cost we pay for using GenAI is to look at the terms of service agreements for using a platform. As of November 4, 2024, OpenAI, owner of ChatGPT and DALL-E, collects the following about most users: name, birth date, credit card information, text inputs, file uploads, IP address, browser type and settings, dates and times of use, and more. From even one session with ChatGPT, OpenAI can determine a user's full name, physical location, and the website a user visited before and after their session, not to mention insights gleaned from the content of the chat session. Because GenAI systems produce better results with more user information, we are encouraged to share personal information with these companies. Depending on user settings or licensing agreement with OpenAI, a user's personal information and content can become part of the training material used to develop their products. In this sense, users are working for OpenAI—and Meta and Alphabet and every other technology company that gathers user data—and being paid through quasi-free access to their software.

In addition to using customer data for product development, tech companies broker user information to third parties, such as credit card, insurance, and marketing companies. The selling of bulk user data and access to users through advertisements is what makes seemingly free services profitable. Tech companies often claim that by removing personally identifiable information, such as names, from the data they sell that individuals are protected. However, many argue there is no way to truly de-identify information because each of us is unique in our behavior, especially in terms of geolocation data. And, of course, OpenAI discloses location data to affiliates, vendors, service providers, and law enforcement for United States-based users.

The majority of users may never feel the direct impacts of our personal data being gathered and sold by GenAI companies. And, yet, many of us are striking a bargain with tech companies without thinking about the ways we are paying a price by abdicating our privacy rights. Morgan C. Banville and Charles Woods provide ways that writing instructors can help students understand these rights better in their chapter.

HIDDEN COST #2: WORKERS' RIGHTS

If individual privacy costs seem like a price individuals can pay, the costs of training and deploying GenAI paid by willing and unwilling workers ratchets up the stakes. In fact, part of the reason tech companies provide quasi-free access to technology is because they do not adequately pay the people who keep the platforms running.

GenAI is only possible when vast amounts of content are available for training. OpenAI and other tech companies scoured public records, the internet, and repositories of creative work to create training sets, usually without the knowledge or consent of the original creators. Intellectual property and personal likeness lawsuits—which Joe Panettieri (2024) documents at the time of writing—give us a tiny glimpse into the sheer number of people whose creative work has been used to train GenAI. Individuals, like Scarlett Johansson and George Carlin’s estate; groups of creatives, including voice actors, independent artists, writers, and coders; and companies, such as Getty Images and *The New York Times*, all claim their work or likeness were illegally used to train GenAI. Other companies, like Condé Nast and TIME, take an if-you-can’t-beat-them-join-them approach by signing partnerships with GenAI companies to make a profit from the use of their content. It is hard to imagine, though, that the writers, photographers, and artists published by these companies anticipated that their creative work would be used to train GenAI. These lawsuits and deals do not include all the creative work pilfered from the public domain, content scooped up from online communities, or publicly accessible material pulled from government sources. While tech companies have so far paid very little for training content, the creative work of generations should be priceless.

The exploitation of workers continues through the labor of low paid workers in the Global South that provide some of the guardrails of GenAI. Journalist Billy Perrigo (2023) exposed the use of low-paid workers in Kenya, Uganda, and India to reduce the number of violent, sexist, and racist outputs by ChatGPT. These workers rapidly label extremely violent and graphic content so that users are not exposed to this material (Perrigo, 2023). That is, to create “ethical AI,” OpenAI turned to unethical methods: paying laborers less than \$2 per hour to look at the most disturbing images on the internet. To create a safe space for some of us, others are subjected to decidedly unsafe material in unstable and low-paying working conditions. This follows a long history of tech companies using human labor to prop up the illusion of human-like machine intelligence. Amazon’s micropayment crowdsourcing platform “Mechanical Turk”—named after Wolfgang von Kempelen’s racist, faux-automaton of the 1700s—used similarly low-paid workers to make earlier AI systems seem intelligent (Crawford, 2022). Now, as in the past, there are very real people on the other side of GenAI who are exploited to make our user experiences safer, seamless, and seemingly free.

HIDDEN COST #3: ENVIRONMENTAL DEGRADATION

Just as the exploitation of human labor undergirds GenAI content, environmental exploitation occurs at all stages of the production and distribution of AI.

Perhaps the gravest price we pay for GenAI is a toll paid by the planet and future generations who will not have access to the natural resources gobbled up by tech companies, which Lydia Wilkes also addresses in this collection.

The staggering numbers of users of ChatGPT, just one of the many chatbots now available, is mirrored by an equally staggering rate of carbon emissions. Researcher Sasha Luccioni (2023) estimates that training GPT-3 released 500 metric tons of carbon emissions from the burning of coal and natural gas, the equivalent of over a million miles driven in a gasoline-powered car. Kate Crawford (2024) reported that ChatGPT alone was estimated to consume the energy of 33,000 homes and GenAI-assisted web searches use an estimated four to five times as much energy as conventional web searches. And, GenAI further contributes to existing environmental impacts of cloud-based technology. Anthropologist Steven Gonzalez Monserrate (2022) reminds us that “the Cloud” is material and results in water and land use, carbon emissions, and noise pollution. In fact, cloud computing has a larger carbon footprint than the airline industry and widespread uptake of GenAI will only further contribute to this pollution.

GenAI not only produces emissions, but requires the use of limited natural resources. Vast amounts of fresh water cool the processors and often provide electricity necessary for GenAI. A preprint study (Li, et al., 2023) projects that global demand for AI in 2027 will result in the equivalent water use of roughly half of the water needed in the United Kingdom. On an individual scale, ten to fifty questions with an AI chatbot are estimated to use a little over two cups of water. Additionally, accessing AI through rechargeable devices requires the use of rare earth minerals, namely lithium and cobalt. Crawford (2022) and Siddharth Kara (2023) argue that there is no such thing as “clean tech” when lithium and cobalt mining are so destructive to the earth and people. Lithium mining contaminates local water sources and cobalt mining poisons the water and air, all the while displacing people and preventing more sustainable uses of the land. This exploitation of land leads us back to the exploitation of human labor, particularly in the rich cobalt mines of The Democratic Republic of Congo where men, women, and children are forced to labor for as little as pennies a day in horrific conditions to produce “affordable” rechargeable batteries for the Global North (Kara, 2023). Again, the costs of easily accessible AI for some of us are paid by the world’s most vulnerable populations.

WHAT’S A WRITER TO DO?

Exploring the hidden costs of GenAI can feel overwhelming. After all, the costs to personal privacy, workers’ rights, and the environment outlined above are not unique to ChatGPT or even GenAI nor will opting out of GenAI in your own

writing process significantly address these problems. Unfortunately, there are no easy fixes to be found. Instead, the hidden costs of AI and similar technologies require a radical repositioning of our understanding of how our interactions with digital platforms impact our lives, the lives of people across the globe, and the future of our planet.

What writers and writing instructors can do is move beyond limited conversations of GenAI as a free tool for cheating or the harbinger of a technological utopia. This chapter briefly touches on a wide range of topics for further research and discussion; it also contributes to the agenda for how to discuss the ethics of AI in our globalized community. In writing studies, we emphasize the collaborative nature of research and writing. Instead of thinking about our individual interactions with GenAI as encounters between an individual and a computer program, what if we thought of them as complex collaborations—both voluntary and not—between ourselves and tech companies, generations of creators, and the global community? How might this challenge us to think in new ways about who pays for technology, what we owe to one another, and how we should value human knowledge and our planet? How might we use our collective voices to begin righting these wrongs?

As I wrote above, the public release of ChatGPT provides a unique moment where many of us are asking big, existential questions. Missing this moment by ignoring the technology or adopting it wholesale would be a grave mistake. Now that you are aware of some of these hidden costs of GenAI, what will you do?

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