

Green AI as Narrative: How Corporations Reframe Environmental Responsibility

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In recent years, artificial intelligence (AI) has increasingly been framed as a technology that can save the planet—a key to achieving a sustainable future. Corporations and media outlets position AI as a solution to global environmental challenges, emphasizing its potential to drive innovation in climate mitigation, resource management, and energy efficiency. Yet behind this optimistic discourse lies an enormous consumption of electricity, water, and raw materials. The data centers and cloud infrastructures that sustain AI systems demand vast amounts of energy, contributing to rising carbon emissions and widening regional inequalities in resource distribution. Despite these material dependencies, the environmental and social costs of AI remain largely invisible in mainstream media coverage and corporate communication. Amid this gap between reality and representation, technology companies have cultivated a new narrative of "Green AI." Through environmental reports, corporate blogs, and social media campaigns, they present AI as a clean and efficient technology that symbolizes growth, innovation, and moral progress. Such narratives not only obscure the extensive resource extraction and geopolitical asymmetries that underpin AI, but also serve to legitimize it as an ethically and environmentally "good" technology, reinforcing its social acceptance and sense of inevitability.

This study aims to examine how AI corporations construct the narrative of "Green AI" from the perspective of media studies. Specifically, it analyzes environmental reports, official blogs, and social media posts from Google, Microsoft, and NVIDIA to investigate how these companies employ particular language, visuals, and affective rhetoric to represent AI as a technology that brings innovation to environmental issues. The analysis further considers how such narratives obscure the material and social costs of AI production and function as discursive mechanisms that legitimize the expansion of the AI industry.

AI is often described as an immaterial or invisible phenomenon. Terms such as "cloud" and "digital space" suggest that AI exists nowhere and can be accessed infinitely with the click of a button, as if it were a disembodied form of intelligence. In reality, however, AI depends on highly material and resource-intensive infrastructures. Training large language models (LLMs), for example, requires vast amounts of electricity. Recent studies provide concrete estimates of AI's environmental footprint. Morrison et al. (2025) report that training large language models can consume up to 2.7 million liters of water, and Jegham et al. (2025) find that

large-scale AI inference uses energy comparable to tens of thousands of U.S. homes and produces notable water evaporation. Moreover, the energy demand of AI is geographically uneven. While most AI infrastructures are operated by technology companies in the Global North, the burdens of electricity use, mineral extraction, and electronic waste are disproportionately concentrated in the Global South. In countries such as the Democratic Republic of Congo, Chile, and Indonesia, the mining of lithium and cobalt—materials essential for AI—has intensified, generating widespread environmental degradation and labor exploitation. In this sense, what appears as the "intelligence" of AI is in fact sustained by a planetary system of extraction and unequal resource circulation.

Nevertheless, these material dependencies often remain invisible to the general public. Cloud-based AI services are presented as limitless and freely available, much like air, giving the impression that they operate without physical cost. As a result, the environmental burden behind their operation rarely enters public awareness. This invisibility complicates current discussions of AI sustainability. Behind the convenience and efficiency that characterize AI systems lies a vast energy infrastructure sustained by global inequalities. Recognizing this reality is an essential first step toward understanding AI not simply as a technological innovation but as a social and environmental phenomenon.

Scholarship on the environmental dimensions of AI has expanded rapidly in recent years. These studies have sought to reconceptualize AI not as a purely software-based or intellectual phenomenon but as a material and planetary-scale infrastructure. Kate Crawford (2021), in *Atlas of AI*, conceptualizes AI as a "planetary extraction system," exposing its reliance on the exploitation of resources, labor, and data. Mél Hogan (2018), in *Big Data Ecologies*, highlights how data centers, through their intensive use of electricity and cooling water, reveal the deep environmental dependence of technologies that are often imagined as immaterial. Similarly, Richard Maxwell and Toby Miller (2012), in *Greening the Media*, critically examine how digital technologies such as smartphones and the internet depend on environmentally costly processes of resource extraction, electronic waste, and energy consumption. These prior studies are significant in that they reconsider the environmental issues surrounding AI and digital technologies through the lens of materiality. However, much of the existing scholarship has focused primarily on identifying the material and political-economic dimensions of AI's environmental impact. Far less attention has been given to how corporations strategically employ media to construct and sustain the narrative of Green AI, and to the discursive mechanisms through which this narrative operates.

Building on these theoretical foundations, this study focuses on how AI corporations construct the narrative of Green AI through media discourse. Rather than measuring the environmental impact of AI in quantitative terms, it examines how AI is represented, what kinds of values and realities these representations produce, and how they sustain the sustainability myth of contemporary tech capitalism. The following sections analyze three case studies, Google, Microsoft, and NVIDIA, to explore how each company constructs and circulates the discourse of environmentally responsible AI.

In its 2025 environmental report, Google adopts a clean visual aesthetic, featuring a forest photograph on the cover and a color palette dominated by green and blue. Images of offices filled with plants and campuses bathed in natural light reinforce the impression of Google as a company that coexists harmoniously with nature. Within the report, Google states that "AI has the potential to contribute to tackling some of society's most pressing challenges and opportunities, including serving as a crucial climate solution," positioning AI as a technology capable of addressing the climate crisis. Yet, the same report also notes that the company's electricity demand driven by AI increased by 27 percent compared to the previous year. This contradiction is reframed through a narrative of "necessary sacrifice" and "investment for social good." Google further asserts that, according to estimates by the International Energy Agency, the emissions reductions enabled by existing AI applications could be three to five times greater than the projected increase in data center emissions, thereby advancing a "net positive" narrative that offsets growth in emissions through assumed external benefits. Google also emphasizes technological efficiency by highlighting that its seventh-generation Tensor Processing Unit (TPU), a specialized microchip for accelerating machine learning tasks, is nearly thirty times more power efficient than the first cloud TPU released in 2018, presenting this improvement as evidence of sustainability. However, given the exponential expansion of model scale, such efficiency gains do not necessarily translate into real emission reductions. Nevertheless, Google increasingly frames efficiency as responsibility and growth as ethics, using these rhetorical pairings to align technological progress with environmental virtue. On its official Google Cloud X account, the company states, "The data is available to help you pursue that goal too," referring to public dashboards that track its carbon-free energy progress and framing sustainability as a collective endeavor. Through such messaging, Google redistributes the responsibility for environmental action from the corporation to society at large, transforming AI development into a hopeful narrative of "a shared future" (Google, 2025).

Microsoft similarly frames AI as a key instrument for solving environmental problems, encapsulated in slogans such as "AI for Earth" and "AI for Sustainability" for its environmental initiatives. In its 2025

Environmental Sustainability Report, the company declares, "We remain pragmatically optimistic because of the promise of new sustainability technologies, innovations in AI, and market solutions that are emerging," portraying AI as a source of realistic optimism. The report also acknowledges that total carbon emissions increased by 23.4 percent due to AI and cloud expansion, yet this increase is reframed as a "sign of growth" and a "byproduct of progress." Rather than denying the environmental consequences of expansion, Microsoft narrativizes them as evidence of what might be called ethical growth. The report further highlights that the company's first data centers constructed with mass timber are projected to reduce embodied carbon by up to 65 percent in FY24, accompanied by visuals that emphasize harmony between technology and nature. This rhetoric of "natural architecture" masks the immense energy consumption underlying AI infrastructure, translating material extraction into an image of ecological balance. On its official LinkedIn account, the company similarly asserts that "Managing water across borders is no easy feat, [...] AI can play a critical role," positioning AI as a facilitator of global collaboration and problem-solving. Through such discursive strategies, Microsoft transforms its environmental responsibility into a collective mission, framing AI not as a contributor to environmental strain but as a shared instrument of planetary hope (Microsoft, 2025).

Finally, NVIDIA constructs its sustainability narrative by equating efficiency with environmental responsibility. In its 2025 Sustainability Report, phrases emphasizing that GPUs are energy efficient and that accelerated computing is sustainable recur throughout its discourse, positioning performance optimization as a form of ecological virtue. The company proclaims, "The era of AI has arrived. [...] At the center of this transformation is the AI factory, where electricity goes in and tokens come out." This metaphor of the "AI factory" invokes the language of industrial productivity and technological transformation, reframing massive energy consumption as the engine of a new industrial revolution. The report also highlights projects such as "EarthRanger," which supports conservation efforts across 76 countries, helping rangers monitor wildlife, prevent poaching, and protect ecosystems. Through such examples, NVIDIA portrays its hardware as an active agent in ecological preservation, transforming its GPUs into tools of environmental care. On its official X account, this rhetoric is amplified through posts such as "Discover five key ways AI and accelerated computing are advancing sustainability, climate science, and energy efficiency," released in conjunction with Earth Day. Together, these messages construct a vision of AI as a technology that not only consumes resources but also redeems them through innovation. In doing so, NVIDIA reproduces the myth of "clean technology," translating the material costs of AI into a narrative of efficiency, progress, and environmental stewardship (NVIDIA, 2025).

When comparing the three cases, several structural similarities emerge across the Green AI narratives promoted by major technology companies. First, each constructs AI as a story of technological innovation and collective hope. Google presents AI as "a solution to climate change," Microsoft frames it as "a foundation for humanity's sustainable future," and NVIDIA depicts "efficient AI computing" as a force that improves the environment. Across these narratives, AI is represented not simply as a tool but as an ethical actor capable of saving both society and the planet. What is particularly noteworthy is that AI is portrayed as both the cause of environmental strain and the means to resolve it. This self-referential logic is central to the discourse of Green AI, transforming environmental crises into problems that technology itself is destined to solve.

Second, these narratives strategically shift the locus of responsibility. Google's invitation that "you can pursue this goal too" and Microsoft's framing of sustainability as a "shared mission for humanity" redistribute environmental accountability from corporations to users and society at large. By embedding corporate emissions and resource consumption within the language of "collective action," these companies employ a discursive strategy that diffuses responsibility. In doing so, the expansion of the AI industry is reframed as a matter of individual effort and collective progress, rendering corporate structural responsibility increasingly invisible.

Third, these narratives obscure global asymmetries. While the development and operation of AI are primarily carried out by corporations in the Global North, the burdens of energy consumption, resource extraction, and electronic waste are disproportionately borne by the Global South. Yet such geographic inequalities are rarely acknowledged in corporate reports or advertising. Instead, companies invoke inclusive language such as "collaborating with people around the world" or "addressing global challenges," which blurs the question of who truly benefits from AI. Through this rhetorical framing, the unequal flows of resources that sustain the AI industry are recast as stories of "global cooperation," masking the material hierarchies that underpin technological progress.

In sum, the discourse of Green AI does not deny ecological realities but reconfigures them through narrative. Tangible burdens such as electricity consumption and water use are reframed through the language of "efficiency," "innovation," and "investment in the future," transforming environmental costs into the "price of progress." This discursive structure functions as a media apparatus that turns environmental degradation into an "ethical challenge" and resource consumption into a "story of hope." In other words, Green AI is not a technology that protects the environment, but rather a technology for speaking about environmental responsibility—a rhetorical system that legitimizes extraction through storytelling.

From a media studies perspective, what is crucial here is not to measure the environmental impact of AI in quantitative terms but to examine how it is narrated and understood. The media do not simply transmit information but actively shape reality. Corporate reports, advertisements, and social media posts function not as reflections of AI's material conditions but as media expressions through which the technology industry legitimizes itself. In this process, technology is portrayed as both the cause and the solution to the ecological crisis. By naturalizing the expansion of AI as "inevitable progress," these narratives conceal the environmental and social costs that sustain it, reproducing what can be understood as a media mechanism of progress as an illusion.

This study has examined how AI corporations construct the narrative of Green AI and how these narratives reinterpret the material and social costs of technology. Rather than transforming environmental realities, such discourse operates as a media process that reconstructs them into stories of progress and responsibility. When AI is portrayed as a technology that can "save the planet," this framing mobilizes public trust and optimism, positioning environmental problems as issues that technology itself can resolve. Therefore, addressing the environmental implications of AI requires not only quantitative assessment but also an analysis of how these narratives shape collective perceptions of technology and nature. This research has demonstrated the significance of understanding AI not merely as a technical system but as something that exists through discourse. Future research could further examine the political and cultural values embedded in these narratives to reimagine the relationship between technology and the environment. Ultimately, media literacy is crucial to recognizing how environmental responsibility is mediated and envisioning more just and sustainable futures.

References

- Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
- Google. (2025). *Environmental Report 2025*.
<https://www.gstatic.com/gumdrop/sustainability/google-2025-environmental-report.pdf>
- Google Cloud. (2021, September 19). By 2030, we aim to run on carbon-free energy, 24/7 [X Post]. X.
<https://x.com/googlecloud/status/1439710914828242947>
- Hogan, M. (2018). Big data ecologies. *Ephemera: Theory & Politics in Organization*, 18(3), 631–657.
- Jegham, N., Abdelatti, M., Elmoubarki, L., & Hendawi, A. (2025). How hungry is AI? Benchmarking energy, water, and carbon footprint of LLM inference (Version 4). arXiv.
<https://doi.org/10.48550/arXiv.2505.09598>
- Maxwell, R., & Miller, T. (2012). *Greening the media*. Oxford University Press.
- Microsoft. (2025). *2025 environmental sustainability report: Accelerating progress to 2030*.
<https://cdn-dynmedia-1.microsoft.com/is/content/microsoftcorp/microsoft/msc/documents/presentations/CSR/2025-Microsoft-Environmental-Sustainability-Report.pdf#page=01>
- Microsoft. (2025, September 16). *Managing water across borders is no easy feat, especially when data is fragmented* [LinkedIn post]. LinkedIn.
https://www.linkedin.com/posts/melanie-nakagawa-2781505_ai-agent-by-iwmi-and-microsoft-to-drive-new-activity-7373834366986334209-0p7X/
- Morrison, J., Na, C., Fernandez, J., Dettmers, T., Strubell, E., & Dodge, J. (2025). Holistically evaluating the environmental impact of creating language models. arXiv. <https://doi.org/10.48550/arXiv.2503.05804>
- NVIDIA. (2025). *NVIDIA sustainability report: Fiscal year 2025*.
<https://images.nvidia.com/aem-dam/Solutions/documents/NVIDIA-Sustainability-Report-Fiscal-Year-2025.pdf>
- NVIDIA. (2023, April). *For this upcoming Earth Day, discover five key ways AI and accelerated computing are advancing sustainability, climate science, and energy efficiency* [X Post]. X.
https://x.com/nvidia/status/1649537891398483968?utm_source=chatgpt.com