March 27, 2024

U.S. Department of Commerce
National Telecommunications and Information Administration
1401 Constitution Avenue N.W.
Washington, D.C. 20230

Via electronic filing

Re: Access Now's Submission to the NTIA concerning Dual Use Foundation Artificial Intelligence Models With Widely Available Model Weights

Docket No. 240216-0052

Dear Bertram Lee and members of the National Telecommunications and Information Administration,

On behalf of Access Now, we are pleased to submit our comments in response to the National Telecommunications and Information Administration's (NTIA) Request for Comment (RFC) regarding dual-use foundation artificial intelligence (AI) models with widely available weights.[1] We appreciate the opportunity to engage in this public consultation process and trust it will lead to a meaningful report on the potential human rights considerations necessary in governing open advanced AI models.

Access Now is an international organization that defends and extends the digital rights of people and communities at risk worldwide.[2] As part of our mission, we operate a global digital security helpline for human rights defenders and journalists to identify and mitigate specific threats to their digital security.[3] We also engage with fellow non-profit organizations and activist communities across civil society and campaign to ensure that new and emerging technologies and their investors, developers, and implementers "do no harm" first and foremost.

Our comments are designed to highlights the need for greater research to inform the debate on the risks and benefits of open models, flag the dominance of 'Big Tech' in AI infrastructure, and propose considerations vital for safeguarding human rights in the AI development process. Particularly, the need to ensure the development of foundation models are done in a resource friendly way taking into consideration the impacts on marginalized communities and non-developed countries.

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[1] https://www.federalregister.gov/documents/2024/02/26/2024-03763/dual-use-foundation-artificial-intelligence-models-with-widely-available-model-weights.
[2] https://www.accessnow.org/.
[3] https://www.accessnow.org/help/helpline-services/.

I. **The Debate over Open versus Closed** *(Questions 2 and 3)*

A key debate around open foundation models centers on their universal accessibility, allowing anyone to access, modify, and alter their algorithms. Advocates of openness argue that this accessibility can lower the entry barriers for various actors, democratizing AI development.[4] Moreover, it could potentially reduce industry monopolization[5] by encouraging broader participation and collaboration.[6] Advocates also argue that such openness can enhance safety and transparency, as it enables comprehensive auditing.[7] Open foundation models allow more actors to participate and collaborate in AI research and development and be involved in threat detection including detecting and fixing vulnerabilities, biases, and other imperfections present in open models.[8] However, scholars also caution that the efficacy of auditing as a safety measure hinges on the availability of significant resources and aligned incentives.[9]

On the other hand, one of the core risks of open foundation models stems from the fact that because everyone can access, build, and alter the weights, the developers of these models have no control over who has access to them and how they are used. As a result, bad actors might exploit these open models for their own benefits.[10] Nefarious actors can access them, remove built-in safety features, and potentially misuse them for malicious purposes, from malevolent actors creating disinformation to generating harmful imagery and deceptive, biased, and abusive language at scale. Monitoring the spread and malicious use of open foundation models is another challenge, mainly due to their widespread availability, and effective oversight hinges largely on the willingness of those employing those models to be transparent.[11]

A clear divide exists between the powerful and influential actors advocating for restricted access, or closed access, to their foundation models and those releasing their models openly. Companies such as OpenAI contend that their models are too powerful to release fully openly, thus only allowing access solely through APIs (Application Programming Interfaces). OpenAI has been explicit about the reasons for choosing an API model over open sourcing their models, highlighting concerns around

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[4] Sayash Kapoor, et al., *On the Societal Impact of Open Foundation Models*, Stanford University HAI (Feb. 27, 2024), https://hai.stanford.edu/news/societal-impact-open-foundation-models; Kyle Miller, *Open Foundation Models: Implications of Contemporary Artificial Intelligence,* Center for Security and Emerging Technology (CSET) (Mar. 12, 2024), https://cset.georgetown.edu/article/open-foundation-models-implications-of-contemporary-artificial-intelligence/#:~:text=For%20some%2C%20safety%20concerns%20may,misuse%20them%20for%20malicious%20purposes.

[5] Jai Vipra and Anton Korinek, *Market concentration implications of foundation models: The Invisible Hand of ChatGPT*, Brookings Institute (Sept. 7, 2023), https://www.brookings.edu/articles/market-concentration-implications-of-foundation-models-the-invisible-hand-of-chatgpt/.

[6] Kapoor, et al., *On the Societal Impact of Open Foundation Models.*

[7] *Id*.

[8] *Id*.

[9] David G. Widder, Sarah Myers West, and Meredith Whittaker, *Open (For Business): Big Tech, Concentrated Power, and the Political Economy of Open AI* (Aug. 17, 2023), at 16, http://dx.doi.org/10.2139/ssrn.4543807

[10] *Id.* at 17; Irene Solaiman, *The gradient of generative AI release: Methods and considerations*, (Proc. of the 2023 ACM Conference on Fairness, Accountability, and Transparency, June 2023) at 8-9, https://arxiv.org/pdf/2302.04844.pdf.

[11] Miller, *Open Foundation Models: Implications of Contemporary Artificial Intelligence*.

misuse, the complexities and costs associated with deploying large models, and the ability to manage and mitigate risks more effectively. The company argues that the potential dangers of their AI products necessitate restricted access, maintaining control over them.[12]

The challenge lies in the fact that both arguments hold merit: should we place our trust in large, powerful companies to wield control over these models and to 'do the right thing', or should we strive to mitigate the evident risks stemming from increasingly powerful open foundation models?

II.   Corporate Dominance in AI Infrastructure *(Question 9)*

The debate between open and closed foundation models often overshadows a critical underlying issue: the dependency on infrastructure necessary for AI development, namely chips, data, and computational power.[13] While it is obviously important to do what we can to prevent the harms that can come from open and closed AI models, such as increased production of non-consensual intimate images (NCII), **the NTIA must think broadly about how developments in AI are reshaping or consolidating corporate power, especially with regard to 'Big Tech.'**

Infrastructure is crucial and understanding the dynamics of companies like Amazon Web Services (AWS) sheds light on the broader implications. For instance, StabilityAI, known for its open-source image generation model Stable Diffusion, secured $100 million in funding, but according to Semafor, burned through a significant portion of that money in paying a massive AWS bill almost immediately.[14] Interestingly, Amazon also announced that it will invest up to $4 billion in the not-open-source AI startup Anthropic,[15] illustrating a central point: the outcome of the debate on open versus closed AI is on a basic level irrelevant to infrastructure providers. One way or another, with increased demand for compute power, this translates into significant revenue.

Microsoft's relationship with OpenAI, despite the latter's closed nature, and its partnerships and investments with companies like the French company Mistral, which takes an open-source approach, further exemplifies the situation.[16] Companies with significant computing infrastructure are incentivized to support the proliferation of AI technology, open or closed, because it leads to increased demands for computing power.

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[12] Cecilia Kang, *OpenAI's Sam Altman Urges A.I. Regulation in Senate Hearing*, Washington Post (May 16, 2023), https://www.nytimes.com/2023/05/16/technology/openai-altman-artificial-intelligence-regulation.html.
[13] *Id*.
[14] Reed Albergotti, *Stability AI is on shaky ground as it burns through cash and looks at a management overhaul*, Semafor (Apr. 7, 2023), https://www.semafor.com/article/04/07/2023/stability-ai-is-on-shaky-ground-as-it-burns-through-cash.
[15] Jeffrey Dastin, *Amazon steps up AI race with Anthropic investment*, Reuters (Sept. 29, 2023), https://www.reuters.com/markets/deals/amazon-steps-up-ai-race-with-up-4-billion-deal-invest-anthropic-2023-09-25/.
[16] *Microsoft and OpenAI extend partnership,* Microsoft Blog (Jan. 23, 2023), https://blogs.microsoft.com/blog/2023/01/23/microsoftandopenaiextendpartnership/; Emilia Dang, *Microsoft's Mistral deal beefs up Azure without spurning OpenAI*, The Verge (Mar. 4, 2024), https://www.theverge.com/24087008/microsoft-mistral-openai-azure-europe.

The current discourse on open versus closed offers no clear alternative to the dominance of 'Big Tech' in AI. Regardless of a model's openness, the necessary infrastructure remains under the control of a few major players. Thus, those with the means to provide compute resources stand to benefit in either scenario, underscoring a fundamental challenge in shifting away from Big Tech's grip on AI development.

III.   Power Asymmetries, Environmental Impacts, and Labor Exploitation *(Question 9)*

In the growing debate on how to regulate the use of AI systems, including, open or closed foundation models, considering the impact of AI on the Global South and the colonial context in which much of this material and labor exploitation takes place is crucial.[17] **What does a foundation model depend on? What is required to build it? What does it extract from the planet? These are critical questions and issues we urge NTIA to take into consideration.**

As it stands, many of the social and economic benefits of artificial intelligence remain geographically concentrated in Western countries and deployed globally, which can asymmetrically impose cultural values.[18] Building large-scale models also requires significant human labor, a task that is often outsourced, widening the gap between the corporations that design and market these technologies and the adverse working conditions involved in their development and training. For instance, Google's Bard model relied on hired workers recruited through outsourcing firms, who received minimal training and reportedly worked under tight deadlines.[19] Indeed, documents showed workers were under pressure to meet deadlines under three minutes.[20] Similarly, OpenAI's employment of workers in Kenya via an outsourcing firm subjected workers to continuously engage with harmful content for low wages, devoid of any support.[21]

The development of AI not only demands significant human labor but also consumes vast planetary resources. For example, the mining of rare earth minerals critical for AI technology often occurs in places like the Congo,[22] while the Global South faces environmental degradation from the disposal of

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[17] Anibal Monasterio Astobiza, et.al, *Ethical Governance of AI in the Global South: A Human Rights Approach to Responsible Use of AI*, (Proc. of the 2021 Summit of the Intl' Society for the Study of Info., 2022), httpps://doi.org/10.3390/proceedings2022081136.

[18] *Id*.; Shakir Mohamed, Marie-Therese Png, and William Isaac, *Decolonial AI: decolonial theory as sociotechnical foresight in artificial intelligence*, (Philosophy & Technology, 2020) at 7, 9, https://arxiv.org/pdf/2007.04068.pdf.

[19] Hasan Chowdhury, *Google's ChatGPT rival is trained by workers who are under pressure to audit AI answers in as little as 3 minutes, documents show*, Business Insider (Jul. 12, 2023), https://www.businessinsider.com/googles-bard-ai-chatgpt-trained-under-pressure-workers-2023-7#:~:text=Google's%20Bard%20is%20trained%20by,and%20are%20given%20minimal%20training;

[20] *Id*.

[21] Annie Njanja, *Workers that made ChatGPT less harmful ask lawmakers to stem alleged exploitation by Big Tech*, Tech Crunch (Jul. 14, 2023), https://techcrunch.com/2023/07/14/workers-that-made-chatgpt-less-harmful-ask-lawmakers-to-stem-alleged-exploitation-by-big-tech/?guccounter=1; *OpenAI and Sama hired underpaid Workers in Kenya to filter toxic content for ChatGPT*, Business and Human Rights Resource Center (Jan. 23, 2023), https://www.business-humanrights.org/en/latest-news/openai-and-sama-hired-underpaid-workers-in-kenia-to-filter-toxic-content-for-chatgpt/.

[22] Monasterio Astobiza, et.al, *Ethical Governance of AI in the Global South: A Human Rights Approach to Responsible Use of AI*.

toxic byproducts.[23] Highlighting the environmental toll, Timnit Gebru, Emily Bender, Angelina McMillan-Major, and Margaret Mitchell in "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?" point out the substantial carbon footprint of AI model training, comparable to the energy used for a trans-American flight.[24] This disparity underscores the need for a more equitable and sustainable approach to AI development and deployment.

Companies often disclose little to no information about the labor practices that support their data work used to fuel their model. This opacity creates an additional obstacle to democratic and open access to resources essential for the creation, training, and deployment of large-scale models. **We therefore urge for the NTIA to advocate for transparency from developers regarding the environmental impact and labor conditions throughout the lifecycle of their foundation models.**

Furthermore, we urge the NTIA to advocate for public-facing transparency standards on resource consumption and greenhouse gas emissions of foundation models. Such standards should cover all aspects of model development, including design, data management, and training, to inform the public and policymakers about the ecological footprint of these technologies and support the creation of sustainable AI policies.

IV.   Conclusion

Navigating the complexities of AI governance requires a nuanced approach, particularly concerning the dichotomy between open and closed foundation models. **This calls for more research to empirically assess and inform the ongoing debate about these issues, including the marginal risks of open systems.[25] There is currently no obvious alternative to the dominance of 'Big Tech' in AI and the necessary infrastructure remains under the control of a few major players that stand to benefit either way.**

The forthcoming report from the NTIA offers a chance to promote the development and use of AI systems in a sustainable, resource-friendly way that considers the impact of models on marginalized communities and how those communities intersect with the Global South. Because these communities are often excluded from conversations and decision making, it's imperative the NTIA assesses how opening or closing models influences these communities, recognizing both the unique benefits and risks involved.

For any questions or to connect with us about our work please contact Willmary Escoto, U.S. Policy Counsel, willmary@accessnow.org.

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[23] *Id*.

[24] Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Margaret Mitchell, *On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?* (Conf. on Fairness, Accountability, and Transparency, 2021) at 612, https://dl.acm.org/doi/pdf/10.1145/3442188.3445922

[25] Kapoor, et al., *On the Societal Impact of Open Foundation Models*.