



March 27, 2024

Bertram Lee  
Office of Policy Analysis & Development  
National Telecommunications & Information Administration  
U.S. Department of Commerce  
1401 Constitution Avenue NW  
Washington, D.C. 20230

VIA ONLINE SUBMISSION

Re: Comments of Engine Advocacy regarding Openness in AI Request for Comment,  
*NTIA-2023-0009*

Mr. Lee:

Engine is a non-profit technology policy, research, and advocacy organization that bridges the gap between policymakers and startups. Engine works with government and a community of thousands of high-technology, growth-oriented startups across the nation to support a policy environment conducive to technology entrepreneurship. Artificial intelligence is used, developed, and deployed by startups, and we accordingly appreciate your consideration of the needs of U.S. startups as you study openness in AI.

**I. Startups are key stakeholders in AI policymaking.**

Thriving entrepreneurship is essential to a strong and growing economy, making potential impacts on startup success a necessary consideration in many policy debates, including around AI. Repeated research has demonstrated that startups are disproportionately responsible for the innovations that drive productivity growth and economic growth, and account for virtually all net new job creation.<sup>1</sup>

Startups already—and will continue to—play a leading role in the development and application of AI. Startups are also likely to out-innovate and may outpace large incumbent technology companies when it comes to AI. But startups will only be able to succeed in the AI space if the U.S. pursues a balanced regulatory regime that bolsters them and avoids entrenching incumbents.

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<sup>1</sup> E.g., Ryan Decker et al., *The Role of Entrepreneurship in US Job Creation and Economic Dynamism*, 28 J. Econ. Persp. 3 (2014), [http://econweb.umd.edu/~haltiwan/JEP\\_DHJM.pdf](http://econweb.umd.edu/~haltiwan/JEP_DHJM.pdf); John Haltiwanger et al., *High Growth Young Firms: Contribution to Job, Output and Productivity Growth*, U.S. Census Bureau Working Paper (2017), <https://www.census.gov/content/dam/Census/library/working-papers/2017/adrm/carra-wp-2017-03.pdf>.

Developing AI can be incredibly resource intensive, meaning AI startups—already operating with comparatively fewer resources than incumbents and other larger competitors—are likely to have to spend more of their limited capital on R&D and navigate increasingly lower-margin business models, which impacts their overall competitiveness. Many parts of AI R&D are expensive, including acquiring, storing or preparing training data. But the largest cost center is compute, such that some AI startups spend more than 80% of the capital they’ve raised on compute resources.<sup>2</sup>

Startups are using and developing AI in nearly every industry, and utilize a variety of business models. For example, startups are using AI to monitor and ensure the health of bees,<sup>3</sup> detect when an elderly person falls,<sup>4</sup> and to enable better sustainability practices.<sup>5</sup> Startups are using AI to counter historic biases in health,<sup>6</sup> lending,<sup>7</sup> and employment.<sup>8</sup> Startups are helping others to innovate.<sup>9</sup> And startups are using AI to help us have fun too: teaching us to play games,<sup>10</sup> finding events we’re interested in,<sup>11</sup> and helping us take better vacations.<sup>12</sup> These startups approach AI development in varying ways, too. Some have built their own specialized models, others have licensed other companies’ models, and others still have built upon and fine-tuned open source models. Some leverage a combination of these things. And some startups make available or contribute to open source AI themselves.

This range demonstrates why startups have a central stake in AI policymaking, especially with regard to openness in AI. With smart AI policy, startups can safely develop, harness, and deploy AI technology to amplify economic growth, accelerate innovation, and improve quality of life.

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<sup>2</sup> Guido Appenzeller, et al., *Navigating the High Cost of AI Compute*, Andreesen Horowitz (Apr. 27, 2023), <https://a16z.com/navigating-the-high-cost-of-ai-compute/>.

<sup>3</sup> E.g., #StartupsEverywhere Profile: Omer Davidi, CEO and Co-Founder, BeeHero, Engine (Nov. 6, 2020), <https://www.engine.is/news/startupseverywhere-fresno-calif-beehero>.

<sup>4</sup> E.g., #StartupsEverywhere Profile: Jean Anne Booth, Founder and CEO, UnaliWear, Engine (Apr. 30, 2021), <https://www.engine.is/news/startupseverywhere-austin-tx-unaliwear>.

<sup>5</sup> E.g., #StartupsEverywhere Profile: George Lee, Founder & CEO, Hydrus.ai, Engine (Jan. 13, 2023), <https://www.engine.is/news/startupseverywhere-sanfrancisco-ca-hydrus-ai>.

<sup>6</sup> E.g., #StartupsEverywhere Profile: Dr. Renee Dua, Founder & Chief Strategy Officer, Renee, Engine (Dec. 2, 2022), <https://www.engine.is/news/startupseverywhere-losangeles-ca-renee>.

<sup>7</sup> E.g., #StartupsEverywhere Profile: Kenneth Salas, Co-Founder & COO, Camino Financial, Engine (May 20, 2022), <https://www.engine.is/news/startupseverywhere-losangeles-ca-caminofinancial>.

<sup>8</sup> E.g., #StartupsEverywhere Profile: Laura Truncellito, Founder, Employable, Engine (Apr. 22, 2022), <https://www.engine.is/news/startupseverywhere-tysons-va-employable>.

<sup>9</sup> See, e.g., Twain Taylor, *8 Recently funded startups that are based on open-source AI*, Azmazic (Oct. 16, 2023), <https://azmzic.com/8-recently-funded-startups-that-are-based-on-open-source-ai/>.

<sup>10</sup> E.g., #StartupsEverywhere Profile: Jeff Wigh, Founder & CEO, Bryght Labs, Engine (Feb. 4, 2022), <https://www.engine.is/news/startupseverywhere-overlandpark-ks-bryghtlabs>.

<sup>11</sup> E.g., #StartupsEverywhere Profile: Andrew Prystai, CEO & Co-Founder, Event Vesta, Engine, (Oct. 29, 2021), <https://www.engine.is/news/startupseverywhere-omaha-ne-eventvesta>.

<sup>12</sup> E.g., #StartupsEverywhere Profile: James Silva, Founder & CEO, ConciergeBot, Engine (Aug. 6, 2021), <https://www.engine.is/news/startupseverywhere-sanfrancisco-ca-conciergebot>.

## II. Openness leads to orders of magnitude reduction in costs.

Open source reduces barriers to entry and innovation and this fundamental truth extends to AI. Open source software contributed to a reduction in costs associated with starting a software company by multiple orders of magnitude, leading to an expansion of technology entrepreneurship and explosion of socially-beneficial innovation.<sup>13</sup> Similarly, open, free, or otherwise widely available tools have further brought down costs of technology entrepreneurship.<sup>14</sup> We should expect the same impact of openness in AI with regard to reducing costs, lowering barriers, increasing participation, and bolstering competition in the AI ecosystem.

Openness in AI helps alleviate costs associated with the expensive parts of building models, leaving startups to focus their limited resources on their core and differentiating innovation. Lower barriers to entry also means more entities working on AI, leading to quicker development and dissemination of beneficial technologies. Moreover, the extent of openness matters. Whether open source AI resources, for example, include detailed documentation, have publicly available model weights, or license-based restrictions can impact how useful those resources are for startups. Policymakers should be very clear-eyed about consequences for startups and innovation of adding policy-related barriers to these resources.

Openness in AI not only lowers barriers for startups, but for researchers as well, enabling further and more widespread study of the technology. Greater transparency, repeatable research, and knowledge-sharing supported by openness in AI will lead to a deeper understanding of AI. That better understanding will benefit innovators, broaden the AI talent pool, and help policymakers tailor and properly balance potential regulations and avoid overbroad, imprecise frameworks that unnecessarily burden small innovators.

## III. AI regulation should be tailored to use, not segmented by “open” or “closed.”

Regardless of openness or not, using an AI system to break the law is still illegal and appropriate enforcement agencies are empowered to take appropriate actions in response. For example, using AI to racially discriminatory ends still runs afoul of civil rights laws and would deserve the attention of the Justice Department. In this way, open source AI—or AI systems built with open source resources—does not need special or additional rules compared to other types of systems. In fact, open source AI, thanks to wider involvement and additional transparency, may have marginal benefits for identifying and fixing problems that—in this example—lead to a biased result.

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<sup>13</sup> *Tools to Compete: Lower Costs, More Resources, and the Symbiosis of the Tech Ecosystem*, Engine and the Computer & Communications Industry Association Research Center (Jan. 2023), [https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/63d2b8d5bec96f502264fd1f/1674754266044/FI\\_NAL\\_CCIA-Engine\\_Tools-To-Compete.pdf](https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/63d2b8d5bec96f502264fd1f/1674754266044/FI_NAL_CCIA-Engine_Tools-To-Compete.pdf).

<sup>14</sup> *Id.*

In a similar vein, openness can have benefits for cybersecurity and other concerns—finding risks and disseminating solutions. Closed systems are not a panacea for security or do not otherwise in and of themselves alleviate AI-related risks. Policymakers should not favor one type of system. Instead, and especially because startups are using all types of systems, AI policy should be equally responsive to—and equally balance the benefits from—policy matters arising from AI systems regardless of openness.

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Engine appreciates you considering our views and the needs of U.S. startups as you continue to study openness in AI. Startups have few resources yet are an overwhelming part of the AI ecosystem and have a direct stake in the outcomes of policy debates surrounding AI. We look forward to continuing to engage with NTIA on this and other matters related to AI.

Sincerely,  
Engine

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