United States Senate

July 11, 2024

The Honorable Lina Khan   The Honorable Jonathan Kanter
Chair   Assistant Attorney General
Federal Trade Commission   U.S. Department of Justice
600 Pennsylvania Avenue, NW   950 Pennsylvania Avenue, NW
Washington, D.C. 20580   Washington, D.C. 20530

Dear Chair Khan and Assistant Attorney General Kanter:

We write regarding our concerns about undue consolidation in the emerging generative artificial intelligence (AI) industry and the threats it poses to consumers, innovation, and national security. To this end, we urge the Federal Trade Commission (FTC) and Department of Justice (DOJ) to bring enforcement action against any technology companies found to be engaging in anticompetitive behavior, including through the growing practice of "reverse acqui-hiring."

Americans use generative AI every day to draft documents, create images and art, and write computer code. Adoption of generative AI is increasing rapidly, as is the diversity of use cases. But there is a threat that, if left unchecked by federal regulators, will hurt consumers, harm competition, and jeopardize national security: undue consolidation. Through partnerships, equity deals, acquisitions, cloud computing credits, and other arrangements, the largest technology companies are entrenching themselves as the dominant firms in the nascent generative AI industry. We're pleased that the FTC and DOJ have already begun to investigate threats to competition in parts of the generative AI ecosystem. But it has become clear that sustained, pointed action is necessary to fight undue consolidation across the industry. This is particularly true for deals that could lessen competition but are structured in ways that could skirt regulatory scrutiny. In particular, we urge the FTC and the DOJ to investigate the recent deal between Amazon and Adept.

Adept is a startup developing AI systems that transform written instructions into computer operations. On June 28th, Adept announced a deal that reportedly sent "close to 66%" of its employees, including its CEO and several co-founders, to Amazon. Moreover, Adept announced it would license its models and datasets to Amazon while using its remaining resources to build enterprise products.

The tech industry has a term for deals where a dominant company acquires a startup primarily to hire its employees: "acqui-hiring." An "acqui-hire" is a formal acquisition that undergoes regulatory scrutiny regarding its impact on consumers, competition, and quality. With Adept, Amazon essentially did a reverse acqui-hire: they hired the employees and, in the process, effectively acquired the company. However, unlike an "acqui-hire," Amazon's deal with Adept allowed them to avoid required filing processes alerting the FTC and DOJ of its plan. Amazon's move raises significant conflicts of interest, given the company's $4 billion investment in Anthropic, a leading generative AI startup with which Adept was competing to build large, general-purpose models.

Amazon's partnership with Adept demonstrates that major tech companies are using identical anticompetitive strategies to evade regulatory oversight in the AI sector. Just last month, the FTC announced that it was opening an investigation into whether Microsoft deliberately structured its recent deal with Inflection, another AI startup, to avoid government antitrust review. That deal – in which Microsoft hired the majority of Inflection's 70-person staff, including the CEO and Chief Scientist, but did not formally acquire the company – is alarmingly similar to the one between Amazon and Adept, and it effectively eliminated a major competitor to OpenAI, the maker of the popular ChatGPT product and a startup which Microsoft has invested over $13 billion into.

These deals are the latest in a string of arrangements between tech firms that have created a hyper-consolidated generative AI industry. To understand the extent of this consolidation, it is helpful to think about the industry as a three-layer "stack," where each layer depends on the one below it. The base of this stack is the hardware layer, colloquially known as "compute," where just a few multinational firms manufacture powerful, specialized computer chips. These chips power servers and data centers located all over the world that big tech companies use for their "cloud" services – thus creating the middle cloud infrastructure layer. The top layer of the stack is the applications layer, where startups and the entrenched firms use massive amounts of cloud infrastructure to train large language models (LLM) and deploy their consumer applications, like chatbots and image generators, at scale.

Three distinct layers: hardware, cloud computing, and applications. But in just a few short years, each layer has significantly consolidated:

- **Hardware**: Taiwan Semiconductor Manufacturing Corporation (TSMC) dominates the market for semiconductor manufacturing. TSMC supplies the materials for Nvidia, a company that experts believe owns 90% market share for Graphical Processing Units (GPUs) chips, the electronic devices used to train LLMs.
- **Cloud infrastructure**: According to the latest estimates, three tech companies dominate 70% of the cloud infrastructure market: Amazon (Amazon Web Services), Microsoft (Microsoft Azure), and Google (Google Cloud Platform).
- **Applications**: At the end of 2023, the three most well-funded generative AI startups were OpenAI, Anthropic, and Inflection. OpenAI's primary investor is Microsoft ($13 billion); Anthropic's primary investors are Amazon ($4 billion) and Google ($2 billion); and Inflection's primary investor is Microsoft ($1.5 billion). Large companies like Microsoft, Amazon, Google, Apple, and Meta are also reportedly developing LLMs and applications of their own.

The extensive consolidation up and down the generative AI industry stack hurts consumers, hinders innovation, and threatens national security. Firstly, it limits consumer choice and exposes Americans to potential abuse due to a lack of viable alternatives. For example, if thousands of applications are built atop a limited number of LLMs, harmful racial or socioeconomic bias introduced into even one model could have negative consequences for broad swaths of the public. Secondly, consolidation is problematic for smaller startups looking to innovate. As dominant firms like Amazon acquire, invest in, or – as in the case of Adept – hire the employees

of promising generative AI companies, they gain control or eliminate potential competitors and stifle vital innovation. Conflicts of interest may also arise when technology startups depend heavily on cloud infrastructure owned by their larger competitors. Finally, consolidation has direct implications for our nation's national security posture. For generative AI, we have deep concerns that attacks on models built or controlled by large firms could compromise Americans' privacy, poison our information ecosystem, and disrupt our economy.
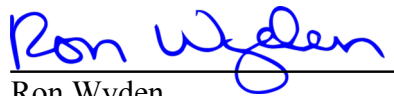
Chair Khan and Asst. Attorney General Kanter, we are deeply concerned about consolidation in the generative AI space and the potential harms to consumers, innovation, and national security. We support the FTC's and DOJ's investigations into the investments, partnerships, and dominance of firms like Microsoft, Google, Amazon, and Nvidia, as a first step. That said, as the FTC and DOJ proceed in their investigations, we urge you to take swift and resolute enforcement action against any company that engages in anticompetitive practices, at each layer of the generative AI industry stack.

Chair Khan, we specifically request that the FTC investigate Amazon's deal with Adept on the same basis as your investigation into Microsoft's deal with Inflection. If this pattern of reverse acqui-hiring continues, it will undoubtedly harm competition and stifle innovation in the emerging AI industry. Moreover, without firm and expeditious enforcement, we are concerned that firms in other industries may execute the same anticompetitive hiring strategy as big tech companies.

Finally, we also urge you to ensure that any actions you take protect the development and availability of open-source AI tools, a vital source of competition. Open-source software — publicly available source code without restrictions on how that code is used or developed — has historically driven innovation by allowing developers to scrutinize, reuse, and build on top of the code for existing systems. Similarly, open-source AI – including publicly available model weights, training data, and code – spurs AI innovation. Software developers can incorporate open-source AI models into new apps, giving consumers alternatives to products that rely on the proprietary models of incumbent corporations. It can also allow researchers to unearth flaws in existing AI models and figure out ways to make them safer. Your agencies must therefore ensure that your actions do not inadvertently impose disproportionate burdens on open-source AI developers, further entrenching dominant companies.
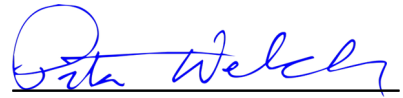
Thank you for your attention to this important matter.

Sincerely,

Ron Wyden
United States Senator

Peter Welch
United States Senator

Elizabeth Warren
United States Senator