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AI Under a Microscope: FTC Tech Summit and Collaboration Investigation — January 2024

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It was a busy week for the Federal Trade Commission's (FTC) effort to investigate and police artificial intelligence (AI). In addition to its half-day AI Tech Summit, the commission authorized the issuance of "any and all" compulsory process in aid of its 6(b) inquiry into the impact of collaborations and investments with AI providers on competition.

According to FTC Chair Kahn, its 6(b) inquiry "will shed light on whether investments and partnerships pursued by dominant companies risk distorting innovation and undermining fair competition." The agency sent information demands to Alphabet, Inc., Amazon.com, Inc., Anthropic PBC, Microsoft Corp., and OpenAI, Inc. Some of the theories of competitive harm identified by the agency include incumbent industry participants taking control of key inputs or adjacent markets, including the cloud computing market, in order to entrench their current power or use that power to gain control over a new generative AI (GenAI) market.

Some examples of unfair methods of competition identified by the FTC include (a) market leaders foreclosing competition through bundling and tying of new GenAI applications with existing core products to reduce the value of their competitors' standalone GenAI offerings; (b) incumbents offering a range of products and services using exclusivity or discriminatory conduct to funnel users to their own GenAI products instead of their competitors' products; (c) incumbents acquiring nascent competitors or critical applications and cutting off rival access to core products or dominant firms purchasing complementary applications and bundling them together with their existing products.

The FTC's most recent information demands directed to the five technology companies seek information regarding:

- A specific investment or partnership, including agreements and the strategic rationale of an investment/partnership.
- The practical implications of that specific partnership or investment, including decisions around new product releases, governance or oversight rights, and the topic of regular meetings.
- Analysis of the transactions' competitive impact, including information related to market share, competition, competitors, markets, potential for sales growth, or expansion into product or geographic markets.
- Competition for AI inputs and resources, including the competitive dynamics regarding key products and

services needed for GenAI.

- Information provided to any other government entity, including foreign government entities, in connection with any investigation, request for information, or other inquiry related to these topics.

Without a doubt, the antitrust agencies' interest in AI will continue through this and into the next administration, regardless of the election results. This administration will endeavor to prevent the leading technology firms from controlling the keys to AI success. Whether government involvement, at this stage, will slow or expedite U.S. development of the technology and its applications will not be clear for some time.

The FTC's Office of Technology also hosted a summit focused on prescient issues involving the intersection of AI and competition and consumer protection. Our focus will be largely on the competition discussion. The summit comprised of three panels, each moderated by members of FTC staff and management, and included industry professionals, academics, journalists, and attorneys. The panels covered three broad AI-related topics: Chips and Cloud, Data and Models, and Consumer Applications. All three current commissioners, the directors of the Bureau of Competition and Bureau of Consumer Protection, and the agency's chief technology officer each made statements.

The presentations covered a wide array of topics, ranging from the semiconductor supply chain all the way to household uses for AI platforms such as ChatGPT. Four distinct themes ran throughout the summit, each of which is discussed below and each of which bears on the interplay between AI and competition.

Concentration in the AI Tech Stack and Its Effect on Competition

While we often think of AI as involving applications such as ChatGPT, panelists noted that beneath those applications is an AI "tech stack," and the consumer applications sit atop that stack. The layers in the stack include the cloud layer that hosts and maintains the data and AI models, the chip layer — which is comprised of the semiconductors that make up the cloud hardware — and the chip input layer — which involves the componentry from which the semiconductors are made. In her opening remarks, Chair Khan set the tone by expressing concern over a "handful of dominant firms" that have concentrated control over the key tools at the foundation of the AI space.

Panelist Ganesh Sitaraman of Vanderbilt University, echoed these concerns, noting that, the lower you move in the AI tech stack, the less market players you will find. He surmised that there were approximately three large players in the cloud computing space and virtually only one major player in the chips market. Technologist and entrepreneur Daven Rauchwerk shared in this view, noting that the relative market strength of the current participants and limited access to capital makes entry into these lower-stack layers challenging. Sitaraman suggested regulatory solutions to this concentration, proposing structural separation of entities who have consolidated market share in multiple stack layers, nondiscrimination regulation, and greater transparency laws aimed at shedding light on the process governing the distribution of key AI resources and tools.

Yet, not all panelists believed these layers were bereft of competition. Databricks' Chief Scientist (Neural Networks) Jonathan Frankle suggested that competition was "intense" from his perspective. He noted that

colleagues at both the major cloud computing service providers and even smaller cloud outfits are competing for AI model business daily. Frankle reminded attendees that Open AI and ChatGPT are not the lone business model for AI. Indeed, AI existed prior to the popularity of ChatGPT in November of 2022. It is possible that this popular narrow view of AI is what leads observers to believe the market lacks competition at the cloud computing level.

Impact of Computing Mobility and Availability on Competition

Several panelists remarked on various computing mobility- and availability-related factors that bear on the competition within the AI space. One such factor is the cost of switching between cloud computing service providers. Moving your data and models from one provider to another is not nearly as simple as it sounds. The Duckbill Group's Chief Cloud Economist Corey Quinn remarked that ventures to migrate from one cloud provider to another are often measured in years. Quinn also noted that migration, at least in some instances, may be pyrrhic. For example, migrating from one computing provider to another for an e-commerce site might make sense in theory; however, it is probable that at least some facet of the e-commerce site (*i.e.*, payment processing) still relies on the same computing provider from which you just migrated.

Ofcom's Director of Economics Tania Van den Brande noted that a study conducted by the UK agency discovered additional barriers to data mobility. Their findings showed that some cloud providers charge "egress fees" to customers who depart the platform. In some instances, cloud computing providers design discounting structures that create incentives for customers to entrust the entirety of their cloud computing needs to a single provider, as opposed to spreading various computing needs across several providers.

To further complicate matters, taking the computing load in-house is often cost prohibitive for venture-backed startups and smaller AI firms. Quinn remarked that Amazon maintains several servers that are earmarked solely for using data it has collected to train its AI model. According to Quinn, these servers can cost $300,000 apiece. Thus, the limited mobility and availability of computing power creates a large incentive for companies to proverbially "park the bus" at one computing provider and remain with them for all of their computing needs.

Impact of Industry Factors on Competition

The summit brought several unique features of the AI space to the forefront, each of which has an organic impact on competition in the space. The first of these is the vertical integration of players near the top of the AI tech stack, which provides the AI model holders with greater access to necessary data.

AI Now Institute's Executive Director Amba Kak discussed the importance of good data as a prerequisite to a successful AI model. She noted that, while data is ubiquitous, good data — *i.e.*, data that is highly curated by humans, niche, accurate, and diverse — is hard to come by. Yet, this is not necessarily the case for several players in the AI space who have long collected data as part of their normal business operations that can be used to train their AI models. Accordingly, the natural vertical integration of the data collection and AI model development functions into one company can put those players at a competitive advantage.

An additional unique feature of AI is the tendency for opensource sharing. The term "opensource" describes a relationship, whereby the model developer makes the AI model and its underlying code available to the public at no cost, rather than simply renting out or licensing use of the model. Frankle noted that, in some instances, in

addition to sharing the AI model, the developer may also provide transparency into how the model was built, the data used to train it, and the hyper-parameters of the model. Opensource models are rich in benefits, as they provide startups and scholars with a free model that they can customize to their particular use case. In contrast, changes in a rented third-party model could damage your use-case or render it obsolete. On the other hand, however, the availability of free opensource models can cannibalize sales away from smaller AI outfits looking to rent or license their model for use.

The final unique feature of the AI space bearing on competition discussed was the marketing of these AI models. Karen Hao, a journalist for *The Atlantic*, indicated that AI models have undergone something of an identity crisis. Hao noted that AI models are sometimes marketed as new-and-improved search engines, giving users the sense that, when they ask the model a question, what they are receiving is an answer that was drawn from a pool of possible answers. However, Hao noted that these models can experience what are called "hallucinations," meaning rather than receiving an accurate answer, what the user receives is a "probabilistic completion" of what the user asked for. Hao recounted a study during which an AI model was asked to summarize images of an MRI scan. In at least one case, the model reviewed an MRI scan with a visible brain tumor, but the model did not include that information in the summary. Accordingly, with AI models straddling the line of search engine and probabilistic response generator, Hao suggested that it can be difficult to pinpoint the relevant market for this product when attempting to analyze the robustness of competition.

No AI Exception to Federal Laws

Nearly every FTC and Consumer Financial Protection Bureau (CFPB) representative expressed the same sentiment — there is no "AI exemption" to the law. They made clear that both agencies have a history of examining similarly complex and challenging issues and technology. The CFPB, for example, has been overseeing complex models, such as those used in credit scoring.

In addition to pointing out that they have the expertise, experience, and tools to oversee AI, the agencies were clear that a company's ignorance of the underlying technology is not a defense. For example, Commissioner Bedoya suggested that, where a company employs an AI model and charges it with a decision-making function, the company cannot later exculpate itself should the model cause harm simply because either (a) the decision was made by a model and not a human or (b) the company did not fully understand the way in which the model made its decisions.

Key Takeaways

- The agencies intend to be active and view AI as squarely within their territories. They are concerned with the roles of the tech market leaders in developing AI and any control they exert over or through technology.

- Although organic industry factors significantly impact data and technology mobility and competition in this space, market participants should take care that the strategies and systems they control do not inhibit existing competition or entry of new competition.

- Teams developing AI models and technology or products dependent on them should be trained on the antitrust risks that they need to avoid and must be questioned about the future effects of their strategies and

developments on competitors, collaborators, and customers.

- The agencies start from the premise that AI firms, unpoliced, pose a danger to competition. As certain panelists noted, the sheer time and money required to migrate vast amounts of data from provider to provider, as well as to train and operate sophisticated models, act as an industrywide deterrent to competition.

- The provision of opensource or free-to-customize models helps drive down the entry costs for new market participants, but the agencies think it is important that these opensource models be transparent about the data that was used to train them and the parameters surrounding their design.

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