United States v. Google LLC

___ F.Supp.3d ___ (D.D.C. Sept 2, 2025)

AMIT P. MEHTA, District Judge.

INTRODUCTION

Last year, this court ruled that Defendant Google LLC had violated Section 2 of the Sherman Act: "Google is a monopolist, and it has acted as one to maintain its monopoly." The court found that, for more than a decade, Google had entered into distribution agreements with browser developers, original equipment manufacturers, and wireless carriers to be the out-of-the box, default general search engine ("GSE") at key search access points. These access points were the most efficient channels for distributing a GSE, and Google paid billions to lock them up. The agreements harmed competition. They prevented rivals from accumulating the queries and associated data, or scale, to effectively compete and discouraged investment and entry into the market. And they enabled Google to earn monopoly profits from its search text ads, to amass an unparalleled volume of scale to improve its search product, and to remain the default GSE without fear of being displaced. Taken together, these agreements effectively "froze" the search ecosystem, resulting in markets in which Google has "no true competitor."

Much has changed since the end of the liability trial, though some things have not. Google is still the dominant firm in the relevant product markets. No existing rival has wrested market share from Google. And no new competitor has entered the market. But artificial intelligence technologies, particularly generative AI ("GenAI"), may yet prove to be game changers Today, tens of millions of people use GenAI chatbots, like ChatGPT, Perplexity, and Claude, to gather information that they previously sought through internet search. These GenAI chatbots are not yet close to replacing GSEs, but the industry expects that developers will continue to add features to GenAI products to perform more like GSEs.

The emergence of GenAI changed the course of this case. No witness at the liability trial testified that GenAI products posed a near-term threat to GSEs. The very first witness at the remedies hearing, by contrast, placed GenAI front and center as a nascent competitive threat These remedies proceedings thus have been as much about promoting competition among GSEs as ensuring that Google's dominance in search does not carry over into the GenAI space. Many of Plaintiffs' proposed remedies are crafted with that latter objective in mind. The question now is what to do about Google's violations. ***

Because of the number and complexity of the parties' proposed remedies, the court does not recite its conclusions and reasoning in detail in this introduction. But here are the top-line determinations:

• Google will be barred from entering or maintaining any exclusive contract relating to the distribution of Google Search, Chrome, Google Assistant, and the Gemini app. Google shall not enter or maintain any agreement that

(1) conditions the licensing of the Play Store or any other Google application on the distribution, preloading, or placement of Google Search, Chrome, Google Assistant, or the Gemini app anywhere on a device;

(2) conditions the receipt of revenue share payments for the placement of one Google application (e.g., Search, Chrome, Google Assistant, or the Gemini app) on the placement of another such application; (3) conditions the receipt of revenue share payments on maintaining Google Search, Chrome, Google Assistant, or the Gemini app on any device,

browser, or search access point for more than one year; or (4) prohibits any partner from simultaneously distributing any other GSE, browser, or GenAI product.

• Google will not be required to divest Chrome; nor will the court include a contingent divestiture of the Android operating system in the final judgment. Plaintiffs overreached in seeking forced divesture of these key assets, which Google did not use to effect any illegal restraints.

• Google will not be barred from making payments or offering other consideration to distribution partners for preloading or placement of Google Search, Chrome, or its GenAI products. Cutting off payments from Google almost certainly will impose substantial—in some cases, crippling— downstream harms to distribution partners, related markets, and consumers, which counsels against a broad payment ban.

• Google will have to make available to Qualified Competitors certain search index and user-interaction data, though not ads data, as such sharing will deny Google the fruits of its exclusionary acts and promote competition. The court, however, has narrowed the datasets Google will be required to share to tailor the remedy to its anticompetitive conduct.

• Google shall offer Qualified Competitors search and search text ads syndication services to enable those firms to deliver high-quality search results and ads to compete with Google while they develop their own search technologies and capacity. Such syndication, however, shall occur largely on ordinary commercial terms that are consistent with Google's current syndication services.

• Google will not have to present users with choice screens on its products or encourage its Android distribution partners to do the same. Precedent requires courts to avoid remedies that compel product design requirements, and in any event, choice screens have not been shown to enhance competition among GSEs.

• Google will not be required to share granular, query-level data with advertisers or provide them with more access to such data. Nor will it have to restore an "exact match" keyword bidding option. Plaintiffs did not establish that these remedies would promote competition in the search text ads market.

• Google will be compelled to publicly disclose material changes it makes to its ad auctions to promote greater transparency in search text ads pricing and to prevent Google from increasing prices by secretly fine-tuning its ad auctions.

• Google will not have to underwrite a nationwide public education campaign. That remedy does not fit Google's violations and its terms are too indefinite.

• Google will not have to modify its policies to offer website publishers more choice in how Google uses their content. This remedy bears no relationship to Google's unlawful acts and is an improper demand to implement overly regulatory requirements.

• Google will not be subject to an investment reporting requirement. It, too, bears no relationship to Google's anticompetitive conduct.

• Google will not be subject to anti-retaliation, anti-circumvention, or self-preferencing provisions. The first two restrictions are too vague and do not comport with the requirements of Federal Rule of Civil Procedure 65(d). There is no legal or factual basis for the last.

The court will establish a Technical Committee to assist Plaintiffs and the court in implementing and enforcing the final judgment. The term of that judgment will be six years, and it will become effective 60 days after entry, except for those provisions relating to the Technical Committee, which will go into effect immediately. ***

FINDINGS OF FACT

The court's primary purpose in this Findings of Fact section is to update the reader on developments that have affected the relevant product markets since the liability trial concluded. These findings are therefore far less extensive and detailed than those contained in the court's liability opinion. The court's main factual findings are woven into the Remedy-Specific Conclusions of Law section, as that is the more natural place to evaluate and weigh the evidence.

In this section, the court focuses on three main topics: (1) GenAI technology and products; (2) new search access points; and (3) changes to Google's search distribution agreements. As to the first topic, the court covers the basics of GenAI technology, GenAI products that perform functions akin to GSEs, and the main players in the GenAI space and the competition among them. The court then discusses Google's Gemini app as a search access point, as well as two new search access points, Circle to Search and Google Lens. Last, the court updates the record as to Google's distribution contracts.

I. GENERATIVE ARTIFICIAL INTELLIGENCE

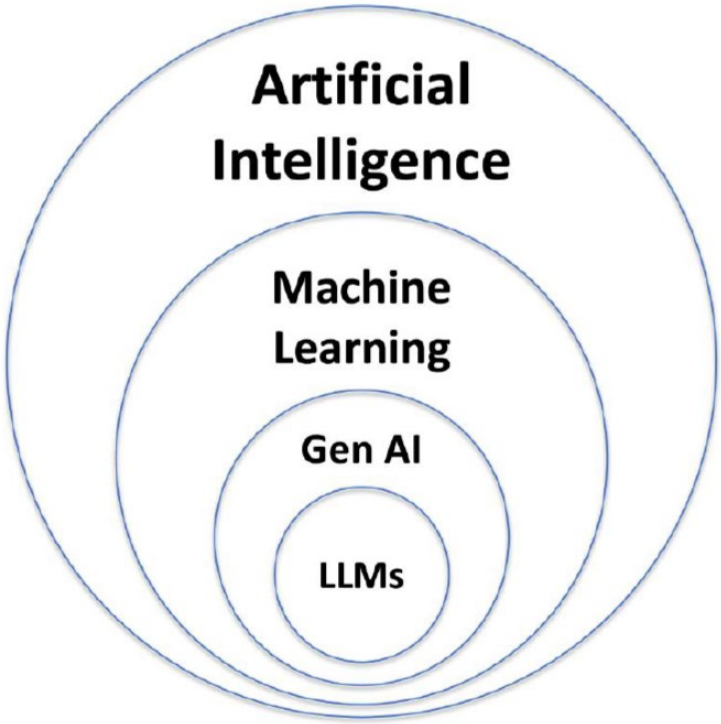
A. Key Terms

1. "Artificial intelligence is the science and engineering of getting machines, typically computer programs, to exhibit intelligent behavior." *Google*, 747 F. Supp. 3d at 52 ¶ 107 (citation omitted).

2. Generative artificial intelligence ("GenAI") is a type of artificial intelligence that uses machine-learning techniques to generate new data, including text, images, sound, code, and other media. Machine learning blends computer science with statistics to learn how to solve problems based on exposure to data.

3. Large language models ("LLMs") are a type of GenAI model that takes text or other types of data as inputs and then generates text or other outputs based on predictions. Language modeling is "the task of predicting the most likely next token in a sequence given a prior sequence of tokens," where one can think of a "token" as a short word or small unit of language. The ability to predict the next token relies on both the quality of the model and the amount of input data.

4. The relationship among the above-discussed types of AI can be visualized as follows:



5. Most LLMs are "transformer" models. Transformers are a neural model—a computational model that attempts to mimic the way the human brain works—that uses billions of parameters to predict the probability of the next token. Google released a paper in 2017 that ushered in the use of transformers, and Google's transformer architecture is now the backbone of modern LLMs.

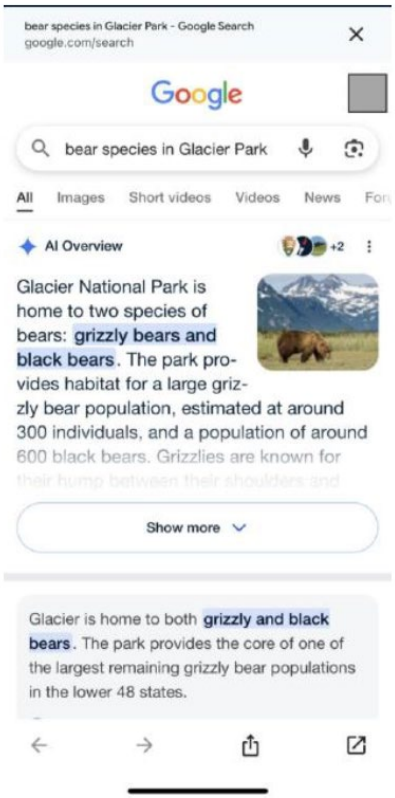
B. AI and Search

1. Integrating AI Features into Search

6. GenAI technologies have increasingly become incorporated into search products.

7. One way Google incorporates GenAI technologies in Search is through a feature known as "AI Overviews." It was introduced in 2024. ***

9. A depiction of AI Overviews on a mobile Google SERP is illustrated below:



*** 11. Google recently integrated a new GenAI feature in Search called "AI Mode." Google's early experience with AI Mode shows that consumers are asking longer questions than in traditional Search.

2. AI Chatbots

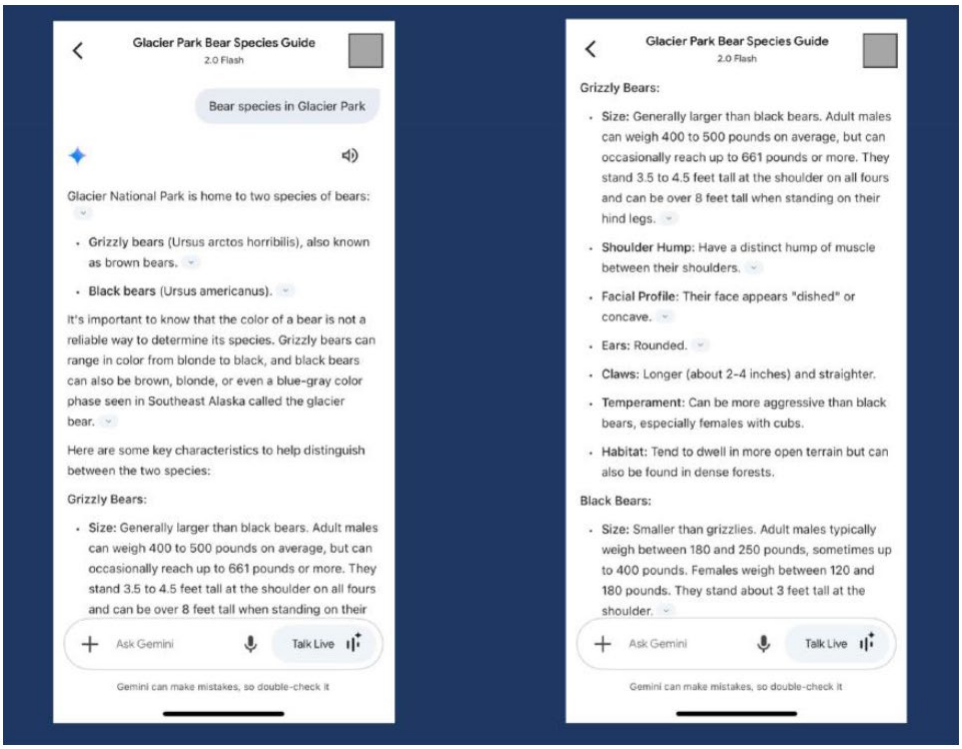
12. Another type of GenAI consumer-facing product is a "chatbot," which is available on both desktop and mobile devices. Some examples include OpenAI's ChatGPT, Anthropic's Claude, xAI's Grok, Microsoft's Copilot, and Google's Gemini.

13. Chatbots are based on the LLMs described above. They serve different purposes than GSEs albeit with some overlap. When a user submits a query to a chatbot, the underlying GenAI model makes a prediction about the answer, drawing upon the data used to train the model.

14. Like a GSE, consumers can interact with AI chatbots by entering information-seeking queries. Thus, chatbots perform an information-retrieval function like that performed by GSEs.

15. Chatbots often include citations and links to websites when responding to information-seeking queries.

16. A sample chatbot response to a query is illustrated below.



17. But chatbots have many use cases that traditional GSEs do not, including composing text, generating code, and creating novel images and video.

3. AI Assistants

18. In an earlier phase of this case, the court discussed Google's voice assistant product. Google has been upgrading that product to the Gemini Assistant, which incorporates LLM technology and GenAI functionality.The Gemini Assistant comes preloaded on certain Android devices.

22. Over the longer term, GenAI companies are striving to transform chatbots into a kind of "[s]uper [a]ssistant." A super assistant would be able to help perform "any task" requested by the user. ***

D. The GenAI Market

1. Participants

[The opinion mentions, in order, Google, Anthropic, DeepSeek, Meta, Microsoft, OpenAI, Perplexity and xAI.]

55. Other companies in the GenAI space include DuckDuckGo, which offers a "Duck.ai" chat service where users can interact with third-party GenAI offerings like ChatGPT, Claude, or Meta AI.

2. Competition Among GenAI Companies

56. The GenAI space is highly competitive.

57. There have been numerous new market entrants.

58. GenAI firms have access to a lot of capital.

59. There is constant jockeying for a lead in quality among GenAI products and models.

60. A variety of GenAI products have achieved widespread usage. For instance, OpenAI calculated its share of the U.S. market as of December 2024 to be approximately 85%, with Claude at 3%, Gemini at 7%, and Perplexity and Copilot making up the remainder. Google estimated that as of March 28, 2025, its Gemini app had roughly 140 million daily queries, with ChatGPT at 1.2 billion, MetaAI at over 200 million, Grok at 75 million, DeepSeek at 50 million, and Perplexity at 30 million.

61. Rival GenAI products have had some success in obtaining distribution with OEMs and other companies. OpenAI, for instance, has partnered with Apple, T-Mobile, Yahoo, DuckDuckGo, and Microsoft. Perplexity has a distribution deal with Motorola under which Motorola will preload Perplexity's application onto new smartphones, although the agreement is not exclusive, the application will not be on the home screen, and it will not be available via a wake word. Perplexity continues to negotiate with other OEMs and browser developers. Motorola has also agreed to partner with Microsoft's Copilot. *See id.* at 363:18-22 (Fitzgerald).

62. Google has entered into distribution and promotion agreements for the Gemini app. *See* RDX0432 (Google-Samsung Gemini Commercial Agreement); RDX0423 (Google-Motorola Google One AI Premium OEM Promotion Agreement); RDX0428 (Google-Lenovo Marketing Agreement).

3. GenAI's Impact on GSE Usage

63. GenAI products may be having some impact on GSE usage. *See* Rem. Tr. at 3818:20-3819:4, 3827:23-3828:11, 3846:25-3847:3 (Cue) (testifying that the volume of Google Search queries in Apple's Safari web browser declined for the first time in 22 years perhaps due to the emergence of GenAI chatbots). But GenAI products have not eliminated the need for GSEs.

64. AI Overviews has potentially strengthened Google's position in the GSE market. Since its introduction, Google Search queries in the United States have increased 1.5 to 2%. At present, more than [REDACTED]% of Search queries trigger an AI Overviews response.

65. Certain types of queries with commonplace usage in GSEs are not within the current use cases of GenAI products. This includes navigational queries. Further, commercial queries are not, at present, a common use case for GenAI applications and thus far have not cannibalized commercial queries on GSEs. ***

CONCLUSIONS OF LAW

In this section, the court sets forth conclusions of law that will frame its later evaluation of the parties' proposed remedies. The court here covers: (1) the general legal principles of antitrust remedies; (2) the sufficiency of the liability-phase factual findings to support the proposed remedies; (3) the "fruits" of Google's exclusionary conduct; and (4) the propriety of including GenAI firms and products within the scope of remedies.

I. LEGAL FRAMEWORK

A. General Principles

It is the duty of the district court, upon finding a violation of the antitrust laws, to redress the violation and restore competition. *See United States v. U.S. Gypsum Co.,* 340 U.S. 76, 88 (1950); *Ford Motor Co. v. United States*, 405 U.S. 562, 573 (1972). The remedy in a Section 2 enforcement action "must seek" to "unfetter a market from anticompetitive conduct," "deny to the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result

in monopolization in the future." *United States v. Microsoft Corp.*, 253 F.3d 34, 103 (D.C. Cir. 2001) [hereinafter *Microsoft III*] (en banc) (internal quotation marks and citations omitted). ***

II. SUFFICIENCY OF THE LIABILITY-PHASE FINDINGS

The court now turns to the parties' dispute over the sufficiency of the liability-phase findings to support the various proposed remedies. All agree that those findings are sufficient to enjoin Google's continued use of exclusive agreements to distribute its GSE. Where they diverge is whether those findings support the greater remedies sought by Plaintiffs. According to Plaintiffs, no more is needed than the liability findings to support each of their proposed remedies, including the divestiture of Chrome. Those findings, Plaintiffs say, establish that "Google's conduct contributed significantly and substantially to Google's monopoly power." Pls.' Br. at 9. ***

Google points out that Plaintiffs offered no evidence that any browser developer, OEM, or wireless carrier wanted to set any GSE other than Google as the preloaded default, and adds that there is "zero evidence" that Apple would have entered the GSE fray if only its agreement with Google were non-exclusive. Google continues that the circumstances that led to its legal *acquisition* of market power preceded and persisted into the unlawful monopoly period, thereby making its *maintenance* of a dominant position attributable to factors other than the exclusive deals. Among other things, Google asserts that, before the start of the maintenance period, it already possessed a significant share advantage (80% of all search queries); "natural barriers to entry . . . were already in place"; it had acquired greater scale than its rivals; and it had developed the technologies that made it the world's best GSE.

Google's critique of the liability findings goes too far. *** By finding Google liable for violating Section 2 of the Sherman Act, the court has already determined that Google's exclusive distribution agreements significantly contributed to the maintenance of its monopoly power. *Google,* 747 F. Supp. 3d at 153. The question, then, is how much confidence the court has in that assessment. Ultimately, the remedy selected, and the way in which it is tailored, must reflect the strength of the causal connection between the anticompetitive behavior and the maintenance of monopoly power.

With these principles in mind, the court looks to its liability opinion and the underlying record to assess the strength of the causation evidence. At the outset, the court can dispatch with the notion that the distribution agreements were the sole reason Google maintained its monopoly The court reaffirms what it wrote in its liability decision:

> Google has not achieved market dominance by happenstance. It has hired thousands of highly skilled engineers, innovated consistently, and made shrewd business decisions. The result is the industry's highest quality search engine, which has earned Google the trust of hundreds of millions of daily users.

Google, 747 F.Supp.3d at 31. The court also recognized that Google's overwhelming market share in mobile search is attributable, at least in part, to Microsoft "missing" the mobile revolution, placing it on the back foot in competing against Google.

Notwithstanding its innovation and successful business strategy, Google still used illegal restraints to maintain its monopoly. *** The court found that the agreements had four main anticompetitive effects: they (1) foreclosed a substantial portion of the relevant markets, thus "impair[ing] rivals' opportunities to compete," *Google,* 747 F.Supp.3d at 159; (2) "den[ied] rivals access to user queries, or scale, needed to effectively compete," *id.*; (3) "reduced the incentive to invest and innovate in search," *id.* at 165; and (4) "enabled Google to increase text ads prices

without any meaningful competitive constraint," thereby allowing Google to earn "monopoly profits to secure the next iteration of exclusive deals through higher revenue share payments." These effects did not persist independently. Together, they enabled Google to widen the moats and pull up the drawbridges to ward off competition. *** The court is thus satisfied that its liability findings support at least some of the proposed behavioral remedies. But, as explained later, those findings do not support the requested structural relief. *See infra* RCOL § II.

III. FRUITS OF GOOGLE'S UNLAWFUL CONDUCT

Antitrust remedies must "deny to the defendant the fruits of its statutory violation." *Microsoft III*, 253 F.3d at 34 (citations omitted) ***.

A. Freedom from Threats

Google's exclusive distribution agreements have allowed it to operate free of any genuine competition for more than 10 years. *** Google's distribution agreements have helped to entrench Google as the default search engine on hundreds of millions of desktop and mobile devices throughout the United States. They accomplish this directly by locking up "the most efficient and effective channels of distribution"—namely, the out-of-the-box default search access points—for years at a time. *Google,* 747 F.Supp.3d at 120. Taken together, the search access points covered by the challenged agreements account for roughly 50% of all search queries issued in the United States. ***

Google, like other GSEs, primarily monetizes search queries through the sale of search ads. More search queries means more ad auctions means more ad revenue. By driving query volume, then, default placements directly drive revenue—in Google's case, to the tune of tens of billions of dollars each year. *** Revenue is not the only advantage default placement confers. Greater query volume also yields greater user data, or "scale." Google utilizes user data "[a]t every stage of the search process," from crawling and indexing to retrieval and ranking. User data further helps Google understand which ads capture users' attention, enabling it to better evaluate ad quality and serve more relevant ads in the future. These improvements in search quality and ad monetization ultimately translate into higher revenue, as superior search results attract additional users and more targeted ads generate more clicks. ***

To be clear, default bias and network effects are features of the general search market; they did not arise because of Google's exclusive dealing. But the challenged contracts, which blocked rivals' access to key distribution channels and steered half of all U.S.-based queries to Google, ensured that Google would reap the greatest benefit from these market forces. While Google amassed an arsenal of user data, its rivals were starved of scale—"the essential raw material for building, improving, and sustaining a GSE." *Id.* at 159. Without an efficient means of reaching users, and thus no real prospect of acquiring scale, rivals and other market players have largely refrained from investing in general search, despite the promise of high profit margins.

The upshot of this exclusionary regime is that "Google's dominance has gone unchallenged for well over a decade." *Id.* at 31 ***.

B. Scale

As set out above, the fact that Google has received substantially more queries than its rivals due in part to its exclusive distribution agreements means that Google has acquired significantly more scale. *Google,* 747 F.Supp.3d at 159. In this subsection, the court dives further into the importance of scale as a fruit of Google's exclusive distribution arrangements.

The record confirms Google's "massive" scale advantage. As of 2020, nearly 90% of all U.S.-based queries are entered through search access points that flow to Google. Google's share is even higher (95%) on mobile devices, which experience stronger default effects. That translates into billions of Google searches conducted every day. When viewed alongside rivals' scale, these figures are even more staggering. "Users enter nine times more queries on Google than on all rivals combined. On mobile devices, that multiplier balloons to 19 times. ***

Importantly, Google's scale advantage encompasses more than just volume; it also exhibits extraordinary breadth. An analysis of 3.7 million unique phrases searched on Google and/or its biggest competitor, Bing, over a seven-day period showed that 93% were seen solely by Google while just 4.8% were seen solely by Bing. On mobile devices, where Google has greater scale, the disparity was even higher. *Google*, 747 F.Supp.3d at 50 ¶ 89. Google's scale advantage is particularly pronounced with respect to long-tail, local, and fresh queries. ***

Scale, then, is more than a mere reflection of Google's size; it is a cornerstone of Google's success. By ensuring that half of all queries—and the legion of user data that accompanies them— flow exclusively to Google, the challenged contracts have directly and significantly contributed to Google's scale advantage.

C. Revenue

Google's exclusive distribution deals have increased not only the amount of data streaming into its servers, but also the amount of revenue pouring into its coffers. The foregoing discussion identified three ways in which these agreements improve Google's monetization of search: (1) Google can serve more ads to users; (2) Google can serve more effective ads to users; and (3) Google can reinvest the revenue generated through (1) and (2) in product development and securing distribution to secure even more users, thereby perpetuating this cycle.

The evidence presented at the liability trial "firmly established" a fourth way in which the challenged contracts enable Google to grow its revenue: by exercising its monopoly power to "increase text ads prices without any meaningful competitive restraint." *Google,* 747 F.Supp.3d at 177-78. *** Unconstrained by rivals' pricing, the prices of text ads have increased over time. *Id.* As search volume grew alongside ad prices, Google's revenue growth has been nothing short of astonishing. From 2010 to 2018, Google's ad revenue grew at a steady annual rate of 20% or more. In 2014, Google booked nearly $47 billion in advertising revenue. By 2021, that number had more than tripled to over $146 billion. Google has used these monopoly profits to secure the next iteration of exclusive distribution deals, paying out billions of dollars in revenue share each year. The result, as witness after witness attested, is that Google's distribution partners "cannot afford to go elsewhere."

D. Google's Objection

Google insists that the court must go further and *quantify* the portion of scale and revenue attributable to Google's unlawful conduct to establish them as fruits. Google points to no case requiring such mathematical precision, and this court has found none. *** No authority, therefore, requires the court to calibrate precisely how much additional scale or revenue Google received as a result of the exclusive agreements to treat them as fruits of the violation.

IV. THE INCLUSION OF GENERATIVE AI PRODUCTS

The final question the court must address before analyzing the parties' proposed remedies is whether the remedial decree should encompass GenAI technologies and the companies that create them. The answer is yes, at least in some respects.

Google's own product development decisions further undermine its stance on excluding GenAI products from the remedial decree. Since the liability trial, Google has deepened the integration between Search and GenAI by incorporating AI Overviews into its SERP and introducing AI Mode, both of which "are expanding the types of queries [users] are typing into Google Search." Rem. Tr. at 2489:24-2491:21 (Pichai); *see* FOF ¶¶ 6-11. That integration shows no signs of slowing. ***

REMEDY-SPECIFIC CONCLUSIONS OF LAW

Having established the appropriate evidentiary and remedial scope for evaluating the parties' RPFJs, the court must now "provide an adequate explanation for the relief . . . ordered" and "explain[] how its remedies decree would accomplish [the] objectives" set forth in *Microsoft III*. *Microsoft III,* 253 F.3d at 103. Google's proposed prohibitory injunctive relief provides an appropriate starting point, so the court begins there. Those remedies are important insofar as they afford distributors greater flexibility to partner with Google's rivals than they had under the agreements the court found to be anticompetitive. That class of remedies is not, however, sufficient to restore competition in the monopolized markets, so the court then will proceed to consider the extensive slate of relief sought by Plaintiffs.

I. ADEQUACY OF PROHIBITORY INJUNCTIVE RELIEF ONLY

Google would have this court go no further than its proposed remedies, the central feature of which is an injunction against those provisions of the MADAs, the RSAs, and the browser agreements that the court deemed exclusive. Among other things, Google's proposed judgment would bar Google from: (1) conditioning an OEM's licensing of Google Play or any other Google software on that OEM also distributing or preloading Search or Chrome, Google's RPFJ § III.A-B; (2) entering any agreement with an OEM or wireless carrier that conditions the payment of Consideration or the licensing of any Google software on the partner not preloading or carrying any other GSE or browser; and (3) conditioning payments to OEMs and wireless carriers upon their preloading or placement of Search or Chrome on multiple points of access to those products. Under its proposal, Google still would be permitted to pay OEMs and wireless carriers for default distribution or other on-device placement of "any Google product or service." Google also would be permitted to pay Browser Developers, including Apple, to set Search as the default GSE, so long as the Browser Developer (1) can promote other GSEs and (2) is permitted to set a different GSE on different operating system versions or in a privacy mode and makes changes, if desired, on an annual basis.

Taken together, these prohibitions grant GSE distributors far more freedom to partner with firms other than Google. *** Google's proposed judgment also reaches beyond its Search, Chrome, and Play Store products. It would bar conditioning the licensing of Search, Chrome, or Google Play on an OEM also preloading or distributing the Google Assistant Application or the Gemini app. Google cannot condition the payment of Consideration or the licensing of Google Play or another Google application on OEMs refraining from distributing a third-party GenAI service. It would also bar Google from conditioning payment for distribution of Google Assistant Application or the Gemini app on preloading or placement of Search or Chrome and

vice versa. Under these provisions, an OEM could license the Google Play Store without any obligation to preload the Google Assistant or Gemini app. Similarly, an OEM or wireless carrier could simultaneously preinstall Google Search and a non-Google GenAI product, like ChatGPT, Perplexity, or Claude, or a rival GSE and the Gemini app.

Google's proposed contracting prohibitions are an important step towards restoring competition to the relevant markets. They will afford distributors the choice to preload, distribute, and feature non-Google products that was largely unavailable under the prior agreements. *** Such optionality is particularly meaningful in the present moment. GenAI products have emerged as a competitive threat to the traditional GSE, and Google cannot be permitted to leverage its dominance in general search to the GenAI product space.

*** All of this is a good start, but Google's proposed remedies do not go far enough. If there is a market that needs to be "pr[ied] open," it is the market for general search services. As the court found during the liability phase, the general search market has been "frozen" for over 10 years. *See Google,* 747 F.Supp.3d at 145. Google's distribution agreements have caused substantial market foreclosure. Fifty percent "of all queries in the United States are run through the default search access points covered by the challenged distribution agreements." *Id.* at 153. Another 20% flow through Google on user-downloaded Chrome, which further narrows the portion of the market available to rivals. *Id.* at 45 ¶ 63. What's more, there has been a paucity of market entry, and no genuine rival has emerged. *Id.* at 144-45. Google's dominance in fact *grew* during the maintenance period, with its market share increasing from 80% in 2009 to 89.2% by 2020. *Id.* at 38 ¶ 23. On mobile, its market share sits at nearly 95%. *Id.* ¶ 24. Still today, "Google has no true competitor." *Id.* at 144.

Merely excising the exclusive provisions from Google's distribution agreements will not unleash competition. Google's remedies fail to address any illegally obtained fruit of those agreements other than the "freedom" from competition that it enjoyed for more than a decade. They do nothing to "eliminate" the *consequences* of its exclusionary acts. Google simply retains too many advantages that are derived in part from its decade-long vice grip on default distribution, including its quality, data volume, and capacity to monetize search queries. These advantages are particularly pronounced for mobile search.

Even with newfound flexibility, distributors still are likely to select Google as its primary, if not only, default GSE. *See, e.g.,* Rem. Tr. at 3830:6-10 (Cue) ("So we have to pick what's best for our customers, and today, that is still Google."). That reality is due in large part to the "network effects" that characterize the general search market. *Google,* 747 F.Supp.3d at 161-62. These network effects reinforced the distribution agreements' exclusivity and Google's dominant position. In such a market, prying open competition is not as simple as prohibiting the exclusionary conduct. *** Google's distribution agreements have unfairly amplified the powerful network effects that characterize the search market. Stripping away the exclusivity of those contracts is a good start to unwind those advantages, so the court will accept those terms. But those prohibitions will not alone restore competition to a market that has not had any in more than a decade. ***

II. STRUCTURAL REMEDIES

The court now turns to Plaintiffs' proposed remedies, starting with what is perhaps the most controversial: the immediate divestiture of Chrome. The court addresses the contingent divestiture of Android in this section, as well.

A. Chrome Divestiture

Under Section V.A of Plaintiffs' RPFJ, Google would be compelled to sell its Chrome web browser—as well as Chromium, the open-source platform underlying Chrome and other web browsers—and would be prohibited from "releas[ing] any other Google Browser during the term of this Final Judgment absent approval by the Court." This remedy reflects Plaintiffs' concern that Google will be able to maintain its dominant position in the relevant markets through the continued ownership and control of Chrome.

The case for Chrome divestiture is straightforward: Google sets its own GSE as the default in Chrome. *Google*, 747 F.Supp.3d at 35 ¶ 6. Chrome is a very popular browser, and its default constitutes a particularly important search access point, accounting for 20% of all searches in the United States. *Id.* at 45 ¶ 63. "Though the Chrome default is not alleged to be exclusionary conduct," the court explained in its liability decision, "it is a market reality that significantly narrows the available channels of distribution and thus disincentivizes the emergence of new competition." *Id.* at 120. *** But the complete divestiture of Chrome is a poor fit for this case. For one, the D.C. Circuit has instructed that "divestiture is a remedy that is imposed only with great caution, in part because its long-term efficacy is rarely certain." *Microsoft III*, 253 F.3d at 80. Plaintiffs have not shown that their behavioral remedies will be ineffective without the immediate divestiture of Chrome.

What's more, Plaintiffs do not satisfy this Circuit's "clearer indication of a significant causal connection" test for structural remedies. *Microsoft III*, 253 F.3d at 106 (emphasis and citation omitted). As discussed above, the court's liability findings support a strong inference that Google's exclusive distribution agreements significantly contributed to maintaining its monopoly power. But the record also contains ample evidence that lawful conduct played an important role in Google's maintenance of its monopoly. That includes its best-in-class search quality, consistent innovations, investment in human capital, strategic foresight, and brand recognition. The contribution of these factors to Google's success is not disputed. To be sure, in some sense even these attributes can be traced back to Google's exclusive distribution agreements: Google's access to default distribution allowed it to amplify network effects to maintain its market advantages by a means other than competition. But the court's task is to discern between conduct that maintains a monopoly through anticompetitive acts as distinct from "growth or development as a consequence of a superior product, business acumen, or historic accident." *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966). After two complete trials, this court cannot find that Google's market dominance is sufficiently attributable to its illegal conduct to justify divestiture. Because the record does not support the requisite heightened causal connection, "wisdom counsels against adopting radical structural relief." *Microsoft III*, 253 F.3d at 80.

*** But more to the point, there would be nothing "natural" about a Chrome divesture. It would be incredibly messy and highly risky. Chrome does not run as a standalone business. At the most basic level, it depends on Google for a host of administrative functions, such as finance, marketing, and human resources. It also is deeply reliant on Google's "hyperscale" technical systems and infrastructure. Chrome relies on Google's back-end systems and engineering personnel for, among other things, account sign-in and authentication, data storage and management at a global scale, and cybersecurity. And then there are the host of Google's private APIs that Chrome is dependent upon and that are critical to its product performance and functionality. These include safe browsing, price tracking, translation, and automatic updates, to name a few. Chrome would be a shell of the product that it is today without access to those APIs.

Even if, as Plaintiffs suggest, these dependencies could somehow be re-created or made available to a new owner—and that is a big "if"—the court is highly skeptical that a Chrome divestiture would not come at the expense of substantial product degradation and a loss of consumer welfare. That concern extends to the Chromium open-source project and other Chrome-based products. Put simply, Plaintiffs have not met their heavy burden to warrant the "radical structural" remedy of a forced divestiture of Chrome and the Chromium open-source project.

B. Contingent Android Divestiture

Section V.C of Plaintiffs' RPFJ proposes "contingent structural relief." If five years after entry of judgment "Plaintiffs demonstrate by a preponderance of the evidence that either or both monopolized markets have not experienced a substantial increase in competition," Google would be required to "divest Android unless Google can show by a preponderance of the evidence that its ownership and control of Android did not significantly contribute to the lack of a substantial increase in competition." Pls.' RPFJ § V.C. Plaintiffs could seek other structural relief, as well. ***

The court does not dwell on this proposed remedy for long. It suffers from similar legal infirmities as the Chrome divestiture. Plaintiffs have never alleged that Google's ownership or use of its Android operating system causes anticompetitive effects in the relevant markets, and they have not explained how a future sale of Android would promote competition in those markets. ***

III. ADDITIONAL "CORE REMEDIES"

The court now turns to what Plaintiffs describe as additional "core remedies" necessary to restore competition. These include: (1) a ban on payments to distributors, (2) data-sharing remedies, (3) syndication requirements, and (4) choice-screen implementation.

A. Payment Ban

The most far-reaching remedy in this category is a prohibition on Google making nearly all search-related payments to distributors. Pls.' RPFJ § IV.A-B, E. That includes any form of consideration for default or preferential placement as well as revenue share payments. The dollar amounts at stake are staggering. In 2021, Google paid more than $26 billion in "traffic acquisition costs" to distribution partners. *Google*, 747 F.Supp.3d at 88-89 ¶ 289. That number has likely grown since. For that reason, this proposal holds the greatest immediate consequence for Google's distribution partners. If accepted, it would have profound impacts on them and the related markets in which they operate.

The rationale for a payment ban is straightforward: It would pry open the market to competition. The revenue share payments shape the market for general search services in Google's favor. They "provide an incredibly strong incentive for the ecosystem to not do anything"; they "effectively make the ecosystem exceptionally resist[ant] to change"; and their "net effect [is to] basically freeze the ecosystem in place." Liab. Tr. at 3796:8-3798:22 (Ramaswamy).

A payment ban in theory could bring about a much-needed thaw. Distributors would have to look to other GSEs to earn revenue share, thereby stimulating competition among Google's rivals to secure default distribution. It also could encourage new entrants, including Apple.

In addition, as discussed, revenues are a "fruit" of Google's exclusionary conduct. A payment ban would be one way to deny Google the fruits of its statutory violation—it could shift revenues historically enjoyed by Google to other GSEs.

Though the bases for a payment ban are sound, the court declines to impose such a remedy at this time. Two main reasons counsel against it.

First, if adopted, the remedy would pose a substantial risk of harm to OEMs, carriers, and browser developers. Distributors would be put to an untenable choice: either (1) continue to place Google in default and preferred positions without receiving any revenue or (2) enter distribution agreements with lesser-quality GSEs to ensure that some payments continue.

The first would not promote competition and in fact would likely advantage Google, at least in the short term. On "day one" post-judgment, distributors will have no real alternative: because Google is the best search provider, they likely will maintain it as the default GSE, if for no other reason than to avoid alienating their customers. Google thus would continue to receive a disproportionate volume of search queries for a fraction of the cost. Freed of having to pay billions in revenue share, Google's profits would *increase*. Not paying Apple alone would result in a windfall worth tens of billions of dollars. Google then could use those profits to improve its products and monetization, further propagating the network effects flywheel that has proven so difficult to disrupt.

As for the second option, even if distributors were, at some point, to select a different GSE or a GenAI product to provide search functionality, without Google in the mix, they likely would earn less than they do now for two reasons. For one, a sizeable number of users would switch back to Google, thereby reducing the revenue share a distributor could earn from the new provider. Additionally, with Google sidelined from competition, rivals would pay less than Google did to secure default or preferential placement.

The complete loss or reduction of payments to distributors is likely to have significant downstream effects on multiple fronts, some possibly dire. They could include:

- Lost competition and innovation from small developers in the browser market.
- Fewer products and less product innovation from Apple. Rem. Tr. at 3831:7-10 (Cue) (stating that the loss of revenue share would "impact [Apple's] ability at creating new products and new capabilities into the [operating system] itself"). The loss of revenue share "just lets [Apple] do less." *Id.* at 3831:19 (Cue).
- Less investment in the U.S. market by Android OEMs, which would reduce competition in the U.S. mobile phone market with Apple.
- Higher mobile phone prices and less innovative phone features.

The court cannot predict to any degree of certainty that one or more of these effects will in fact occur. But the risk is far from small, which is reason enough not to proceed with the remedy.

Plaintiffs acknowledge the possibility of adverse market effects from a complete payment ban but implore the court to focus on the task of restoring competition to the relevant product markets. They believe that, although there may be short-term harm to some market actors, they will benefit in the long run from increased competition. Acting in equity, however, the court cannot be so myopic. It must consider the harms that might befall other market actors, even if that means, as here, forgoing a remedy that could help restore competition.

Second, if one or more of these adverse market impacts were to come to pass, it would harm consumer welfare. That could manifest in various ways, including higher prices, less innovation, and less competition. **

The court well recognizes what eschewing a payment ban may mean for competition. Due to Google's massive financial advantage and its superior monetization, distributors will be incentivized to stick with Google because it can pay more, thus leaving in place the very forces that "effectively [have made] the ecosystem exceptionally resist[ant] to change." *Google,* F.Supp.3d at 145 (quoting Liab. Tr. at 3796:8-3798:22 (Ramaswamy)). Continuing payments also could blunt the effectiveness of the remedies imposed.

Still, the court thinks allowing Google to continue making payments is more palatable now than when the liability phase concluded. Then, venture funding in "Internet search" was considered Silicon Valley's "biggest no fly zone." Liab. Tr. at 3512:5-7 (Nadella). Today, established technology companies are making, and start-ups are receiving, hundreds of billions of dollars in capital to develop GenAI products that pose a threat to the primacy of traditional internet search. The money flowing into this space, and how quickly it has arrived, is astonishing. These companies already are in a better position, both financially and technologically, to compete with Google than any traditional search company has been in decades (except perhaps Microsoft). They also are moving towards monetizing on commercial queries. These new realities give the court hope that Google will not simply outbid competitors for distribution if superior products emerge. It also weighs in favor of "caution" before disadvantaging Google in this highly competitive space.

So, for now, Google will be permitted to pay distributors for default placement. There are strong reasons not to jolt the system and to allow market forces to do the work. *** The court is thus prepared to revisit a payment ban (or a lesser remedy) if competition is not substantially restored through the remedies the court does impose.

B. Data-Sharing Remedies

Section VI of Plaintiffs' RPFJ contains a multi-faceted set of data-sharing remedies. Plaintiffs believe these remedies will provide Google's rivals and new entrants "the necessary ingredients to not only improve the quality of their existing [search] services but also create new search features and other innovations in the medium to long term." Pls.' Br. at 40. These remedies are designed primarily to deny Google a key fruit of its anticompetitive conduct—scale—and to help rivals overcome that deficit. *Id.* at 43-46.

The Section VI remedies require Google to make available to Qualified Competitors on a periodic basis: (1) certain Search Index data, Pls.' RPFJ § VI.A; (2) three sets of User-side Data, *id.* § VI.C-D; and (3) certain Ads Data, *id.* § VI.E-F. The court first addresses the justification for the data-sharing remedies and then addresses each category of shared data.

1. Justification for Data Sharing

The rationale for these remedies is tied directly to a key liability finding: the distribution agreements allowed Google to lock in its sizeable scale advantage over its rivals. The court found that, for more than a decade, Google's distribution agreements gave "Google access to scale that its rivals [could not] match." *Google,* 747 F.Supp.3d at 159. The exclusive nature of those agreements meant that rivals did not have "access to user queries . . . needed to effectively compete." *Id.* Conversely, as even Google conceded, default placements meant that Google "receive[d] additional search volume beyond what it would otherwise receive." *Id.* (citation omitted). ***

In light of these findings and the strength of the underlying causation evidence, the court agrees with Plaintiffs that data sharing "represents a reasonable method of eliminating the consequences of the illegal conduct," *NSPE,* 435 U.S. at 698 *** . Making data available to competitors would narrow the scale gap created by Google's exclusive distribution agreements and, in turn, the quality gap that followed. Data sharing would be particularly helpful to smaller search engines, who would not only "get better, but . . . keep getting better at a faster and faster rate up to some point" at which diminishing returns set in. *Google*, 747 F.Supp.3d at 52 ¶ 106. ***

The need for a data-sharing remedy is heightened by the court's decision not to adopt a payment ban. Qualified Competitors will have to continue to compete with Google on price to gain distribution. So, their competitive advantage will have to come from innovation and differentiating their search services from Google's. That is not something a Qualified Competitor can reasonably do without access to scale. ***

Plaintiffs' data-sharing remedies are directly tied to the theory of liability in this case. As already discussed, Google's scale advantage is a fruit of its exclusive distribution agreements, and it is appropriate under the Sherman Act to deny Google that fruit through disclosure of the data it accumulated and used to maintain its monopoly. Furthermore, the sharing of scale-dependent data will enhance other companies' ability to compete with Google in the monopolized markets by enabling them to improve their quality and monetization and thereby take advantage of the network effects phenomenon that has been pivotal to Google's success. ***

Google also asserts that Plaintiffs' data-sharing remedies would have market-distorting effects that would not restore competitive conditions. Google's Br. at 34, 39-43. Google's expert in economics and industrial organization, Dr. Kevin Murphy, opined that requiring periodic data disclosures—for up to 10 years—would reduce Google's incentive to innovate because the company would not be able to keep the returns from its Search investments for itself. ***

The court does not discount the importance of this concern; indeed, it was a key reason why the D.C. Circuit decided against broader disclosure of Microsoft's proprietary information in *Massachusetts*. *See* 373 F.3d at 1219. That said, there are several reasons to believe that the adverse effects of data sharing are not as strong as Google suggests.

Plaintiffs' expert, Dr. Chipty, opined that the proposed data-sharing provisions would stimulate greater competition and thereby motivate Google to continue to innovate, because as competitors improve their products, Google will need to keep pace, even if it means having to disclose some innovations to rivals. Dr. Chipty acknowledged the free-rider problem but believed that competitors would have ample incentive to invest to differentiate their products from Google's, both to attract users and to secure distribution. Furthermore, there is no argument (much less evidence) that Google's profit motive will dissipate, as Search—specifically, search advertising—forms the backbone of Google's revenue stream. Finally, given the ongoing GenAI arms race, Google will have to continue to invest billions and innovate in this highly competitive space just to keep up. In this moment of all moments, Google cannot afford to abandon or scale back its investment in search technologies, given the importance of grounding to GenAI products and the integration of GenAI into Search, through AI Overviews and AI Mode, which is likely only to deepen.

In any event, as will be discussed in greater detail below, Plaintiffs' data-sharing proposals will be modified to mitigate their impact on Google's and competitors' innovation incentives. For example, provisions directly implicating Google's proprietary ranking technologies can be removed. The number and frequency of disclosures are likewise subject to modification. The

court will "tailor[]" the proposed data-sharing remedies "to fit the wrong" committed by Google. *Microsoft III*, 253 F.3d at 107.

2. Search Index

Plaintiffs seek to compel disclosure of certain data contained in Google's Search Index to Qualified Competitors. Pls.' RPFJ § VI.A.1-3. Their RPFJ defines "Search Index" to mean "any databases that store and organize information about websites and their content that is crawled from the web, gathered from data feeds, or collected via partnerships, from which Google selects information to provide results to users in response to general search queries." *Id.* § III.X. Google would be required to make available, "at marginal cost," the following information ***. Google would have to make this data available "on a periodic basis to be determined by Plaintiffs in consultation with the [Technical Committee]." *Id.* § VI.A.

A search index is essentially a database of publicly available web pages that can be returned in response to a user query. *Google*, 747 F.Supp.3d at 38-39 ¶ 29. A comprehensive and current index is critical to returning high-quality search results. Google has been able to grow its web search index and improve its search results due in part to the high volume of queries that it receives relative to other GSEs. *Id.* at 49-52 ¶¶ 86-106. *** Google uses signals to score and rank web pages. *** Signals developed on user-interaction data play an important role in search index development. Quality and popularity signals, for instance, help Google determine how frequently to crawl web pages to ensure the index contains the freshest web content. ***

Search index quality is critically important not only for traditional search engines, but also for emerging GenAI products. LLM-driven chatbots now routinely incorporate into their responses fresh information from the internet or other sources through a process known as grounding. FOF ¶¶ 36-46. Retrieval-augmented generation, or RAG, is a grounding technique. FOF ¶ 37. Whereas before, an LLM's response was time-limited by the end date of its training data and prone to hallucinations, FOF ¶¶ 32-35, through grounding an LLM can now access content beyond its training data, such as web pages in a search index, to provide more recent and more accurate information (though it does not fully eliminate the problem of hallucinations), FOF ¶¶ 39-42.

The size of Google's index gives it a key competitive advantage over existing small GSEs, like DuckDuckGo, and emerging companies in the GenAI space, like ChatGPT. Witnesses testified to what is known in the industry as the "80-20 problem." Building a search index that can answer 80% of queries is capital intensive but attainable in the short to medium term. Answering the remaining 20%, which comprises long-tail queries, is particularly challenging because it requires the index to contain very specific and often obscure sources. Granting Qualified Competitors access to Google's search index can help address the 80-20 problem and improve search quality. ***

The search-index data-sharing remedy thus satisfies the governing test—it "represents a reasonable method of eliminating the consequences of the illegal conduct." *NSPE,* 435 U.S. at 698. *** Nevertheless, this court is not prepared to go as far as Plaintiffs request. Plaintiffs' Search Index data demand is overly broad and is not "tailored to fit the wrong creating the occasion for the remedy." *Microsoft III*, 253 F.3d at 107.

To begin, the definition of "Search Index" sweeps in data that is only remotely related to Google's scale advantage. It includes databases that store information "gathered from data feeds" and "collected via partnerships." Pls.' RPFJ § III.X. That is data supplied by third parties. Plaintiffs put forward no evidence that Qualified Competitors are unable to acquire such data

on ordinary commercial terms. The limited record evidence on this subject strongly suggests that they can.

The final judgment therefore will reflect a definition of Search Index that extends only to "databases that store and organize information about websites and their content that is crawled from the web." *See* Pls.' RPFJ § III.X. *** What remains, then, of Plaintiffs' proposed Search Index data disclosure requirement is the following: (1) the unique DocID for each document, including a notation as to duplicates; (2) a DocID to URL map; (3) the first time a URL was seen; (4) when the URL was last crawled; (5) spam score; and (6) device-type flag. The compelled disclosure of this data is a reasonable and proportional means of remediating the harm caused by Google's exclusive agreements. Receipt of this narrowed dataset will still enable rivals to overcome the scale gap by allowing them to more quickly build a competitive search index—one that is robust in volume, freshness, and utility. ***

Two things are important to note about these narrowed sets of Search Index data. The first is that Google will not be required to produce data that is largely a product of engineering and innovation. *** Notably, the narrowed Search Index data that Google will be required to disclose is comparable to what it once shared under an agreement with an existing partner, Yahoo Japan. The second is that, even with the shared Search Index information, rivals still will have to invest considerable resources in building out their own search index. The actual data crawled is not subject to disclosure. So, competitors will have to build the crawlers, crawl the web pages, extract the web page information, and process the data to create a competitive search index.

Before moving on, two other aspects of Plaintiffs' Search Index data-sharing proposal warrant the court's attention.

First, there is the frequency of disclosure. Plaintiffs would have Google make the data available on a "periodic basis to be determined by Plaintiffs in consultation with the [Technical Committee]." Pls.' RPFJ § VI.A. Presumably, Plaintiffs want periodic sharing so that Qualified Competitors have the freshest search index data.

The court declines such a remedial requirement. Qualified Competitors will receive a one-time snapshot of the relevant data contained in Google's Search Index at or around the time they are so certified by Plaintiffs. Periodic data disclosure over the course of years goes beyond what is needed to "cure the ill effects of the illegal conduct." *See Ford Motor Co.,* 405 U.S. at 575 (quoting *Gypsum*, 340 U.S. at 88). A one-time disclosure of Google's current Search Index data "will reveal what Google thinks is important and relevant," Rem. Tr. at 4815:4-6 (Closing Arg.) (Google's counsel), and will enable Qualified Competitors to build their own search indexes to answer long-tail queries, thereby giving them the kick start they need to compete. ***

The last matter concerns the cost of the Search Index data-sharing remedy. Plaintiffs propose that Google make that data available at "marginal cost." *See* Pls.' RPFJ § VI.A. Their RPFJ does not include a definition of that term. During closing arguments, Plaintiffs represented that the term is meant to capture the cost to Google to collect and furnish data to a Qualified Competitor. *** The court believes that this cost provision "fits the exigencies" of this case and is therefore appropriate for four reasons. *See Int'l Salt,* 332 U.S. at 401. ***

3. Knowledge Graph

In addition to data comprising some of Google's Search Index, Plaintiffs propose requiring Google to share with Qualified Competitors "databases consisting of information sufficient to recreate Google's Knowledge Graph, including local information." Pls.' RPFJ § VI.A.4. Such

disclosure would occur "on a periodic basis to be determined by Plaintiffs in consultation with the [Technical Committee]." *Id.* § VI.A.

Google's Knowledge Graph is a database containing useful information about people, places, and things along with what connects them together. The database is enormous. It contains five billion entities and 500 billion connections among them. Google uses the Knowledge Graph to help interpret queries and to return factual results. The data used to create the Knowledge Graph is derived from both structured data—think of data in a table format—and unstructured data, such as a web page. One of the structured data sources is Google's Geo Index, which contains its local information, such as for restaurants and other small businesses. An example of such data is the opening and closing times of a store. The local business directly supplies that information, or it might come from a user who submits it to Google. ***

Plaintiffs say that the compelled disclosure of Knowledge Graph data "is meant to allow rivals to overcome Google's scale advantage in obtaining content to build its Knowledge Graph." Pls.' Br. at 44. Their justification for the remedy is two-fold. "Due to Google's scale, publishers are incentivized to permit Google to crawl web content, while blocking rival's web crawlers." *Id.* Also, "Google's Geo Index benefits from users being incentivized to create content for Google, including information about businesses such as locations, hours, or even richer data such as restaurant menus." *Id.* at 44-45.

The court declines to adopt the Knowledge Graph data proposal because it is not "tailored to fit the wrong creating the occasion for the remedy." *Microsoft III*, 253 F.3d at 107. The "wrong" committed by Google was to lock up the key channels of distribution to the exclusion of its rivals, thereby affording Google a massive scale advantage. *Google,* 747 F. Supp. 3d at 159-163. "Scale," in this context, means "[g]reater query volume" that translates to "more user data." *Id.* at 49-50 ¶ 87. The Knowledge Graph is not, however, directly derived from user data. ***

4. User-Side Data Remedies

a. The User-Side Datasets at Issue

Plaintiffs' next data-disclosure proposal involves compelled sharing of "User-side Data." Pls.' RPFJ § VI.C. Plaintiffs define "User-side Data" to mean:

> all data that can be obtained from users in the United States, directly through a search engine's interaction with the user's Device, including software running on that Device, by automated means. User-side Data includes information Google collects when answering commercial, tail, and local queries. User-side Data may also include datasets used to train (at all stages of training including pre-training and filtering, post-training, fine-tuning) Google's ranking and retrieval components, as well as GenAI models used for Google's GenAI Products.

Id. § III.BB. In simple terms, User-side Data is data that Google collects from the pairing of a user query and the returned response. It also can be thought of as user-interaction data or "click-and-query" data. ***

Under the proposed remedy, Google must make available to Qualified Competitors, "at marginal cost" and on a "periodic basis to be determined by the Plaintiffs in consultation with the [Technical Committee]," the following datasets:

1. User-side Data used to build, create, or operate the GLUE statistical model(s);
2. User-side Data used to train, build, or operate the RankEmbed model(s); and

3. The User-side Data used as training data for GenAI Models used in Search or any GenAI Product that can be used to access Search.

Pls.' RPFJ § VI.C. Google uses the first two datasets to build search signals and the third to train and refine the models underlying AI Overviews and (arguably) the Gemini app.

First some background about these datasets. Glue is essentially a "super query log" that collects a raft of data about a query and the user's interaction with the response. ***

RankEmbed and its later iteration RankEmbedBERT are ranking models that rely on two main sources of data: [REDACTED]% of 70 days of search logs plus scores generated by human raters and used by Google to measure the quality of organic search results. The RankEmbed model itself is an AI-based, deep-learning system that has strong natural-language understanding. This allows the model to more efficiently identify the best documents to retrieve, even if a query lacks certain terms. RankEmbed particularly helped Google improve its answers to long-tail queries. ***

The final category of User-side Data is that which trains GenAI models used in Search or in GenAI products. *** Google does not use click-and-query data to pre-train its base Gemini models. It considered doing so but did not find that the benefits of pre-training on search data to be worth the cost. *** The Google Search team post-trains Gemini base models for search-specific uses. ***

Google's vast trove of User-side Data is a fruit of its anticompetitive agreements and for that reason compelled sharing of some of that data is a "reasonable method of eliminating the consequences" of Google's conduct. *NSPE,* 435 U.S. at 698. Witnesses from rival companies testified that access to Google's user-interaction data would allow them to improve their GSE, particularly in responding to long-tail queries. ***

But just as Plaintiffs' Search Index data-sharing remedy goes too far, so too does their User-side Data-sharing proposal in one respect. The court starts with the demand for data used to train GenAI Models, then turns to the Glue dataset, and concludes with the RankEmbed dataset.

Training Data for Gemini Models. Evidence that Google deploys user-interaction data to train Gemini models for Search or the Gemini app was sparse. *** The evidence did not show, for instance, that Google's GenAI product responses are superior to other GenAI offerings due to Google's access to more user-interaction data. If anything, the evidence established otherwise: The GenAI product space is highly competitive, and Google's Gemini app, for instance, does not have a distinct advantage over chatbots in factuality and other technical benchmarks. FOF ¶¶ 56-62. So, even if Google uses some "Search data" to post-train Gemini models used in Search or its GenAI products, sharing that data is not warranted to promote competition.

Glue Data. The sharing of the dataset underlying the Glue statistical models, on the other hand, presents a stronger case for inclusion in the final judgment. Again, the data in question is largely raw user-interaction data that associates queries and results with user interactions, such as clicks, hovers, and other aspects of a user's journey on and from the SERP.[21] This is the bread and butter of Google's scale advantage. *** This scale advantage is attributable in part to the exclusive agreements, and aided by unlawfully amplified network effects, it has enabled Google to maintain its monopoly status. Forcing Google to share this data is an appropriate way to address the harm of its anticompetitive conduct.

RankEmbed Data. As for compelled sharing of "User-side Data used to train, build, or operate the RankEmbed model(s)," Pls.' RPFJ § VI.C.2, the court believes such disclosure is appropriate

as well. The data underlying RankEmbed models is a combination of click-and-query data and scoring of web pages by human raters. Plaintiffs concede that Google would not have to turn over the scoring data. But the click-and-query data is the fruit of Google's unlawful conduct, which Google uses to build a quality advantage over its rivals. The RankEmbed data is a "small fraction" of Google's overall traffic, Liab. Tr. at 6449:17-25 (Nayak), but the RankEmbed models trained on that data have directly contributed to the company's quality edge over competitors. *** It is important to emphasize again that Plaintiffs do not demand that Google reveal the RankEmbed models themselves or the signals they produced, only the data used to train those models. This is a reasonable method of addressing the consequences of Google's unlawful conduct.

Google will be required to share Glue and RankEmbed data with a Qualified Competitor at least twice. A more than one-time disclosure is reasonable given the importance of updating training data with fresh information. *** The User-side Data remedy *** is tethered to an appropriate remedial objective: the goal of denying Google the fruit of its violations. It also poses no threat to reveal the "blueprints" to Google's search infrastructure and technology. *** Further, the remedy involves no compelled disclosure of intellectual property or trade secrets, such as algorithms, ranking signals, or post-trained LLMs used to deliver GenAI results. Plaintiffs also have made clear that they are not seeking even modest proprietary data, such as query- and document-salient terms or human-rater scores. The sharing of raw user data does not pose the same risks of "cloning" that were present in *New York I*. And finally, the limited disclosure ordered here will not dampen Google's incentive to innovate, a consequence the court in *New York I* feared but this court does not. ***

5. Ads Data

The final component of Plaintiffs' data-sharing proposal is Ads Data. Pls.' RPFJ § VI.E Plaintiffs define "Ads Data" to mean "data related to Google's selection, ranking, and placement of Search Text Ads in response to queries, including any User-side Data used in that process." *Id.* § III.A. The remedy would require Google to

> provide Qualified Competitors, at marginal cost, the following Ads Data, in addition to any data made available by Google via the APIs required under Sections VII and VIII: Ads Data used to operate, build or train AdBrain models or other models used in Ads targeting, retrieval, assessing ad relevance, bidding, auctioning (including predicted click-through rates (pCTR)), formatting, or content generation.

Id. § VI.E. Like the User-side Data remedy, Google would be required to "use ordinary course techniques to remove any Personally Identifiable Information" and apply appropriate privacy-enhancing techniques before making the data disclosure. *Id.* § VI.F.

Plaintiffs' Ads Data-sharing remedy is premised on the court's liability determination that "[s]cale also improves search ads monetization." *Google,* 747 F.Supp.3d at 161. *** The court finds that this remedy is both too broad and suffers from a failure of proof. *** Not only is the remedy's scope too broad, but the court lacks basic information about what data is subject to disclosure. *** Nor have Plaintiffs come forward with sufficient evidence showing how Ads Data-sharing will increase competition in the general search text ads market. *** In sum, given the poor fit and dubious efficacy of the Ads Data remedy, the court declines to adopt it.

C. Syndication Remedies

1. Search Syndication

a. The Remedial Terms

The next category of behavioral remedies that Plaintiffs urge involves the syndication of search results by Google to Qualified Competitors. "Syndication" in this context means an arrangement whereby one GSE provides another GSE the results and content for its SERP. Section VII of Plaintiffs' RPFJ provides:

> Google must take steps sufficient to make available to any Qualified Competitor, at no more than marginal cost of this syndication service, a syndication license whose term will be ten (10) years from the date the license is signed, and which will require Google, via real-time API(s), to make the following information and data available in response to each query issued or submitted by a Qualified Competitor. . . .

Pls.' RPFJ § VII.A. ***

To emphasize the comprehensiveness of the remedy, Plaintiffs state that Google must provide information "the same as if the Qualified Competitor's query had been submitted through Google.com." *Id.* And Google must make the syndicated content available "with latency and reliability functionally equivalent to what Google provides for its own SERP." *Id.* § VII.C.1. Also, Google would have to allow any Qualified Competitor with a pre-existing syndication license with Google to terminate its existing agreement and opt into the remedies available under the final judgment. *Id.* § VII.G.1.

Plaintiffs also propose that Qualified Competitors would be freed of any limitations on the use of the data that they receive from Google. *** Plaintiffs recognize that an unlimited syndication right for 10 years could create dependency on Google and disincentivize Qualified Competitors from investing to improve their own GSE. So, Plaintiffs propose that access to syndicated results would "decline over the course of a 10-year period with an expectation that licensees will become independent of Google over time through investment in their own search capabilities." *Id.* § VII.C.2. The applicable rate of decline is to be determined in consultation with the Technical Committee. *Id.*

There is one last important piece to the proposed syndication remedy. Qualified Competitors would be permitted to submit "synthetic or simulated queries" to Google. *Id.* § VII.E. These are essentially made-up queries, by a human or machine, that a Qualified Competitor could ask Google to run to test towards developing its own GSE. ***

b. Evaluating the Search Syndication Remedy

The court agrees with Plaintiffs that a syndication remedy satisfies *NSPE*'s "reasonable method" standard, but it is far too broad as proposed and must be narrowed. The rationale for the syndication remedy is straightforward. It will take time for a Qualified Competitor to build its own search index and the capacity to deliver high-quality search results. But poor results from the start could doom the enterprise before it gets off the ground, as users may not give a competitor a second look if it cannot deliver quality results from the outset.

Syndication addresses that problem. It would enable Qualified Competitors to compete in the short term as they work towards developing a GSE that can independently compete against Google. It would aid, in particular, in answering long-tail and local queries and queries for which

freshness is important. Even Google's primary syndication witness, Director of Product Management Jesse Adkins, agreed that "search syndication can provide a bridge until a new search engine can become a fully independent search engine." Syndication therefore is a "reasonable method" of addressing the effects of Google's anticompetitive acts.

But just because the syndication remedy is reasonable does not mean that it is a proper fit in Plaintiffs' proposed form. The court narrows it in multiple ways.

First, the scope of syndication will be restricted. Plaintiffs' syndication requirement is exceedingly broad. It includes not only organic web results, but seemingly all features that appear on the SERP and related data. Google must provide for each query access to "mainline content and sidebar content and sitelinks and snippets" and "Local, Maps, Video, Images, and Knowledge Panel search feature content," with no apparent limitation. Pls.' RPFJ § VII.A. It also must supply the data that would help understand how *Google* would lay out, display, slot, and rank "all items or modules on the SERP." *Id.*

The forced wholesale sharing of such features and related data goes beyond what is appropriate to close the scale gap. Further, the breadth of information that Google would have to disclose would enable Qualified Competitors to effectively replicate how Google delivers its SERPs. How else to explain Plaintiffs' insistence that Google must provide information that is "the same as if the Qualified Competitor's query had been submitted through Google.com"? *Id.* § VII.A. Plaintiffs' remedy also has no commercial equivalent. No current Google customer receives such broad syndication services. And Plaintiffs have offered no proof that any other search syndicator offers anything comparable.

Even the "[r]anked organic search results" syndication term is too broad. Pls.' RPFJ § VII.A.2. It requires Google to supply those results "regardless of whether such web content was obtained by crawling the Internet *or by other means*." *Id.* (emphasis added). But, as discussed, some of the information that appears on Google's SERP is obtained from third parties and therefore is not scale dependent. Plaintiffs do not assert (much less demonstrate) that a Qualified Competitor cannot acquire that information on its own for display it on its own SERP. The court thus limits Section VII.A.2 to "ranked organic *web* search results obtained from crawling the web."

Google's syndication obligations under Section VII.A shall be consistent with its current syndication agreements. A Qualified Competitor who opts into the syndication remedies shall receive organic results and features on terms no less favorable than a current licensee as of the date the judgment is entered. That means Google must provide to a Qualified Competitor its Local, Maps, Video, Images, and Knowledge Panel features that it provides under current agreements. It also must provide user-facing query-rewriting features, but not those on the back end. *** The court *** believes that when it comes to a remedy like syndication for which there is an established market and which requires Google to deal with a Qualified Competitor, it is best to hew closely to ordinary commercial terms.

Second, Google will *not* be required to provide syndication services at "no more than . . . marginal cost." *See* Pls.' RPFJ § VII.A. Pricing shall be based on "financial terms no worse than those offered to any other user of Google's search syndication products." *Cf. id.* § VIII.E (pricing term for Search Text Ads Syndication). This change is necessary for the compelling reasons set forth in the *amicus* brief submitted by Brave Software, Inc., a small U.S.-based web browser and GSE developer. Brave is the only U.S. company other than Google and Microsoft that "has built the technology to crawl the web and construct a search index capable of generating all of its own search results." *Id.* at 1. As Brave points out, syndication at "marginal cost" for a term of years would create perverse incentives. It would encourage market entry by "white label"

GSEs in the short term—that is, a GSE that would seek simply to present Google search results under a different brand name. Such entrants could exist for years at nominal cost and will lack the incentive to differentiate and invest for the long term. By requiring a Qualified Competitor to pay a market rate for syndication, a Qualified Competitor will be incentivized to invest in its own search index and search technology to lower the marginal cost of a query response.

Ordering Google to syndicate at "marginal cost" also would interfere with a different product market: the one for search syndication. *See* Brave Br. at 9-12. There is such a market in the United States, with at least two suppliers other than Google: Microsoft and Brave. Under Plaintiffs' proposed pricing term, "no independent GSE . . . could sell its search results at or below Google's marginal cost and still cover its own costs, much less earn a profit." Brave Br. at 10. Brave "rel[ies] on this revenue stream" and would lose income, *id.,* and with little prospect of profiting from syndication, independent GSEs like Brave "will cease or decrease investment in maintaining (let alone improving) their search indices," *id.* at 10-11. Syndication with Google at "marginal cost" therefore will reduce, if not eliminate, competition in the market for syndicated search results. ***

Third, the syndication license shall be for five, not 10 years. Witnesses consistently described syndication as a near-term solution that would enable Qualified Competitors to offer high-quality results while working towards building a search index that could compete with Google's. *** A five-year license will force Qualified Competitors to wean themselves from Google's syndication services more quickly.

Fourth, Qualified Competitors' use of Google's syndication services in the first year will be capped at 40% of annual queries. Establishing this query cap is consistent with the record evidence that competitors are capable of building search technologies that will allow them to answer 80% of user queries "pretty quickly." Imposing a cap, therefore, is consistent with the notion that Qualified Competitors should rely on syndicating responses with Google only for rare queries. *See* Brave Br. at 19-20. The court sets the first-year cap at the higher mark of 40%, however, because the record is not clear as to how rare a query must be to be considered in the long tail. *** The court also intends to adopt a tapering provision that reduces the percentage of queries all Qualified Competitors can annually syndicate from Google. ***Given the technical nature of this subject (and the humility with which judges must approach crafting a remedial decree), the court will call on the Technical Committee to assist in devising an approach that facilitates competition but incentivizes Qualified Competitors to move promptly to become independent of Google.

Fifth, the court rejects Plaintiffs' demand that "Google may not place any conditions on how any licensee may use syndicated content." Pls.' RPFJ § VII.B. Google's ordinary-course syndication agreements contain restrictions on how a licensee may use search results. For instance, licensees are prohibited from "scraping, indexing, or crawling" the syndicated search results. These types of restrictions are meant to protect Google's intellectual property. Such use restrictions are common industry practice. Even Google's agreement with Yahoo Japan contains such restrictions. Also, the purpose of this remedy is to provide a short-term measure for Qualified Competitors to compete as they improve their own search capabilities, not an additional means to facilitate that development. Other remedies serve that latter purpose. Ordinary commercial restrictions on use therefore are consistent with the objective of the search syndication remedy.

Sixth, Google will not be required to receive and respond to synthetic queries. According to Plaintiffs, synthetic queries and storing of their results can improve search quality. Pls.' PFOF

¶¶ 749-754. Such queries can "improve ranking," *id.* ¶ 749, and "will assist Qualified Competitors to improve their quality through experimentation," Pls.' RPFOF ¶ 1189. But these claims suffer from a lack of proof. None of Plaintiffs' industry witnesses testified to the relationship between synthetic queries and quality improvement, or that synthetic queries are ordinarily allowed under U.S.-market syndication agreements to improve search quality. Rem. Tr. at 1277:2-9 (Provost) (stating that under Yahoo's syndication agreement with Microsoft it is permitted to send synthetic queries to perform non-descript "testing"). Also, the theory behind synthetic queries is not consistent with the search syndication remedy. The opportunity to syndicate with Google, once more, is meant to help a Qualified Competitor compete until it becomes an independent GSE, not as a way to improve search results. ***

Seventh, Google will not be required to syndicate FastSearch results. Pls.' RPFJ § VII.A.5. Recall, FastSearch is a technology that rapidly generates limited organic search results for certain use cases, such as grounding of LLMs, and is derived primarily from the RankEmbed model FOF ¶ 44. Google does not use FastSearch results for its SERP. Rem. Tr. at 3510:8-11 (Reid). And it does not directly syndicate FastSearch results. FOF ¶ 45. Rather, FastSearch results are delivered through Vertex, Google's cloud-based grounding product. *Id.* Given FastSearch's function, forced syndication of its results is an ill-fitting remedy. That data will not help GSEs improve search results. *See* FOF ¶ 44 (FastSearch results are less reliable than results from the Search product). Its primary use case is grounding for GenAI products, but Plaintiffs have not asked the court for a remedy that would forbid Google from refusing a Qualified Competitor's request to receive services through Vertex. The court will not require Google to create a syndication service for FastSearch results, when it does not do so now.

* * *

The syndication remedy, albeit narrowed, will serve its intended purpose: Qualified Competitors will be able to deliver high-quality web results for five years while they build their own search index and search stack. Google will not be able to refuse a Qualified Competitor's syndication request. At the same time, the narrowed remedy strikes an important balance. It addresses Google's concerns that the forced syndication contemplated by Plaintiffs exceeds ordinary commercial terms and places its intellectual property at risk. It also lays to rest Google's contention that the syndication remedy places the court in the role of a "central planner," as syndication agreements with Qualified Competitors generally will have to follow ordinary commercial terms and therefore will not need to be customized. The final syndication remedy is thus "tailored to fit the wrong creating the occasion for the remedy." *Microsoft III*, 253 F.3d at 107.

2. Search Text Ads Syndication

a. The Remedial Terms

To complement their search syndication remedy, Plaintiffs also propose that Google be required to syndicate Search Text Ads to Qualified Competitors. Pls.' RPFJ § VIII.E. Plaintiffs use the term "Search Text Ads" as shorthand for "a general search text advertisement, which is an ad that resembles an organic link on a SERP." *Id.* § III.Y. This definition aligns with the court's liability findings that Google does not have monopoly power in the broader search ads market, *see Google,* 747 F. Supp. 3d at 133-136, but that its exclusionary conduct had an anticompetitive effect in the general search text ads market, *see id.* at 177-181.

The Search Text Ads syndication remedy has multiple components: "Google must take steps sufficient to make available to any Qualified Competitor a Search Ads Syndication License

whose term will be ten (10) years from the date the license is signed." Pls.' RPFJ § VIII.E. Google must provide "latency, reliability, and performance functionally equivalent to what Google provides for Search Text Ads on its own SERP." *Id.* The syndication service shall extend to all types of Search Text Ads that appear on Google's SERP. *Id.* Google must offer it "on financial terms no worse than those offered to any other user of Google's Search Text Ads syndication product, e.g., AdSense for Search, or any other current or future products offering syndicated Search Text Ads." *Id.* Qualified Competitors also "must have the right to set a minimum [cost per click ("CPC")] for ads syndicated . . . to appear on their website." *Id.*

Google cannot discriminate against Qualified Competitors who opt into this remedy. It "must include Qualified Competitors in its Search Partner Network," which is a collection of Google's ad syndicators' sites. *Id.* It also "must make the purchase of ads syndicated under this Paragraph available to advertisers on a nondiscriminatory basis comparable to, and no more burdensome than, the availability of Google's other Search Text Ads." *Id.*

There is more. Google also must deliver a slew of data associated with a syndicated ad. "For each syndicated ad result, Google must provide to the Qualified Competitor all Ads Data related to the ads provided to the Qualified Competitor, including the identity of the advertiser and CPC paid, and conversion data where available, without restrictions on use of the Ads Data including restrictions on using it to market or solicit advertisers for Qualified Competitors' own advertising products." *Id.* Further, "Google may impose no restriction on use, display, or interoperability with Search Access Points, including of GenAI products, provided, however, Google may take reasonable steps to protect its brand, its reputation, and security." *Id.* It also "may not place any conditions on how any Qualified Competitor may use or display syndicated [ad] content . . . including on scraping, indexing, or crawling the syndicated results." *Id.* Finally, Google "may not retain or use (in any way) syndicated queries or other information it obtains . . . for its own products and services." *Id.*

As for the advertisers themselves, Plaintiffs' RPFJ enshrines their power to choose. Advertisers must have "the option to appear on each individual Qualified Competitor's sites on a site-by-site basis (i.e. an advertiser can choose to appear as a syndicated result on a Qualified Competitor's site regardless of whether it opts into the Search Partner Network or chooses to appear on any other site, including Google.com)." *Id.* Google already allows advertisers to make these choices. Rem. Tr. at 2959:8-15 (J. Adkins) (agreeing that "Google's advertisers choose whether to advertise on the ad syndicator sites" and stating that "for every search campaign and shopping campaign, there is an opt-out for the search partner network, which includes all of our search partners or publishers"). The court therefore adopts the advertiser-choice aspect of Plaintiffs' remedy but only insofar as such choice is consistent with Google's current advertiser terms and policies.

The rest of the remedy merits more discussion.

b. Evaluating the Search Text Ads Syndication Remedy

Google already offers a search text ads syndication product called AdSense for Search. When a syndicator receives a user query, its sends Google an ad request, and Google then runs an auction to select the ads for that request and serves the results into an "iframe" on the syndicator's website. If an ad is clicked, the advertiser will pay for the click, with Google and the syndicator sharing the revenue.

Like the search-syndication remedy, the compelled syndication of Search Text Ads is an appropriate short-term measure designed to "pry open" the relevant markets. *See Int'l Salt Co.,* 332

U.S. at 401. As explained in the liability opinion, Google's monetization of general search text ads is a key component in the flywheel that has made its monopoly so durable. *See Google,* 747 F.Supp.3d at 163. Because Google has more users, it has more advertisers, and with more advertisers, it has more dollars to improve its GSE and pay for distribution. *See id.* at 162. In the face of such formidable headwinds, allowing Qualified Competitors to syndicate Search Text Ads from Google is essential to facilitating competition. It will provide a new entrant a means of serving high-quality ads that it can monetize from the start. That revenue can be reinvested to improve search quality, gain distribution, and perhaps build a proprietary ad platform. *See id.* It is also possible that an independent ad platform could emerge to compete with Google and Microsoft, which are the only current suppliers of general search text ads in the United States.

But as with their search syndication remedy, Plaintiffs' search text ads syndication proposal strays too far from ordinary commercial terms. The remedy therefore will be narrowed. **

First, Google may place ordinary-course restrictions on the use or display of syndicated ad content. That includes limitations designed to guard against "trick-to-click" schemes, ensure the proper ordering of ads, guarantee ad quality, protect the advertiser, and prevent ad misuse.

Second, Google need not grant Qualified Competitors the right to set a minimum cost per click for syndicated ads. That is not an ordinary term of Google's syndication contracts.

Third, Google will be permitted to retain or use syndicated queries for its own products and services, in the same manner it presently uses such information to "build, improve, and maintain" its ad infrastructure.

Fourth, Google will not be required to provide the Qualified Competitor "all Ads Data related to the ads provided." This is not data that Google currently provides to ad syndicators. The ads data is of benefit to the entity that has the relationship with the advertiser, and that is Google, not the Qualified Competitor. The effort to analogize the broad disclosure of syndicated ads data to Google's agreement with Yahoo Japan is misplaced. Under that agreement, Yahoo Japan has the advertiser relationship, not Google.

Fifth, to coincide with the five-year license for search syndication, the Search Ads Syndication license shall be for five years, not 10. Google notes that its typical ads syndication agreement is two years to allow the parties to renegotiate, but in this remedial posture, a longer license is appropriate to afford a Qualified Competitor greater certainty to develop its capacity to compete.

Sixth, Google shall be required to provide on a non-discriminatory basis "latency, reliability, and performance functionality equivalent to what Google provides" to other syndicators of its search text ads, not "equivalent to what Google provides for Search Text Ads on its own SERP." Pls.' RPFJ § VIII.E.

One term shall remain unchanged. That is, the Search Text Ads License shall be based on "financial terms no worse than those offered to any other user of Google's Search Text Ads syndication products." Pls.' RPFJ § VIII.E. That term is, in effect, a most-favored-nation pricing clause. It will prevent Google from charging an inflated price to Qualified Competitors, and it will provide Qualified Competitors certainty about their costs for a five-year term and facilitate building search capacity in a predictable way. In that sense, the term is pro-competitive. ***

D. Choice Screens

The final component of Plaintiffs' "core remedies" is the implementation of choice screens. A "choice screen is fundamentally a user interface that asks the consumer to make an explicit

choice among a number of products." Rem. Tr. at 532:11-14 (Rangel). Plaintiffs' Choice Screens remedy consists of three parts. *** In simple terms, these provisions would enable users to choose a GSE at various search access points and to select a default GSE on a search access point, where there is one. Users would be asked to make a GSE selection upon first-time device use and then again on an annual basis. These choice screens would be designed by Google in the first instance, in accordance with certain specifications; reviewed by the Technical Committee; and approved by Plaintiffs.

The purpose behind offering users a choice screen is to blunt the "power of defaults." *See Google,* 747 F.Supp.3d at 45 ¶ 65, 159-161. *** The largest percentage of search queries flow through default search access points, making "the defaults extremely valuable." *Id.* In theory, a choice screen could dampen the default effect. It would give the user the option to select Google or a different GSE with minimal choice friction. *** And more choice could translate into increased consumer welfare. ***

The court, however, declines to impose the proposed choice screen remedies for multiple reasons.

First, "[t]he case law is unwavering in the admonition that it is not a proper task for the Court to undertake to redesign products." *New York I*, 224 F.Supp.2d at 158. *** Either way, a compelled product design is not an appropriate use of the court's equitable powers.

Second, forcing Google to redesign its *own* products is not an appropriate remedy. This case was always about Google's distribution agreements with third parties, not its product design. *** True, conduct that is otherwise lawful when committed by a non-monopolist can be deemed anticompetitive when performed by a dominant firm. But when it comes to Google installing its own GSE as the default on its own products, Plaintiffs have never even so much as hinted that such conduct is anticompetitive.

Third, choice screens are not likely to change the competitive landscape under current or even near-term market conditions. Plaintiffs' economic experts have acknowledged as much. And the real world offers proof. The European Commission has mandated the display of choice screens on Android devices since 2020, yet there has been little shift in market share away from Google. ***

The court declines to impose a remedy whose prospect of promoting competition is dim. ***

V. ANTI-CIRCUMVENTION, ANTI-RETALIATION, AND ADMINISTRATIVE REMEDIES

Plaintiffs have included four remedial measures under the general heading "Anti-Circumvention, Anti-Retaliation, and Administrative Remedies." Pls.' Br. at 65-71. They include (1) separate anti-retaliation and anti-circumvention provisions, Pls.' RPFJ § X.E-F; (2) establishment of a Technical Committee to assist in administering the final judgment, *id.* § X.A; (3) a requirement that Google provide the Technical Committee with notice of acquisitions and investments made by Google in certain categories of companies, *id.* § IV.H-I; and (4) a bar on "self-preferencing" conduct, *id.* § V.B.

A. Anti-Circumvention and Anti-Retaliation Remedies

In Section X.E, Plaintiffs propose a general prohibition against retaliation. "Google must not retaliate in any form against a person because it is known to Google that the person is or is contemplating" various acts. ***

Plaintiffs do not dispute that the final judgment is subject to Federal Rule of Civil Procedure 65(d), which requires that every order granting an injunction must "describe in reasonable detail . . . the act or acts restrained or required." Fed. R. Civ. P. 65(d)(1)(C). Neither the anti-retaliation nor the anti-circumvention provisions satisfy the Rule 65(d) standard. The anti-retaliation provision broadly proscribes retaliation "in any form," without providing any specifics about what type of conduct might constitute a retaliatory act. Pls.' RPFJ § X.E. Distinguishing retaliation from sharp-elbowed business conduct cannot be easily determined without some metes and bounds. ***

B. Technical Committee

Plaintiffs propose that the court establish a Technical Committee to facilitate enforcement of and compliance with the final judgment. *See* Pls.' RPFJ § X.A. Google urges the court not to do so. *** The establishment of a Technical Committee to assist the plaintiffs and the court in enforcing equitable antitrust remedies is not unusual. *** The court therefore approves forming a Technical Committee as part of the final judgment.

C. Investment Notification Requirement

Plaintiffs propose that Google provide them with notice before it completes a broad range of transactions with other firms. Pls.' RPFJ § IV.H-I. *** The court in *New York I* rejected a similar, albeit significantly broader, reporting remedy. There, the plaintiffs wanted Microsoft "to report its investments, regardless of size or significance, in a wide array of technologies and businesses," which the plaintiffs argued would "assist law enforcement authorities in monitoring Microsoft's investment activities for violations of the antitrust laws." *New York I,* 224 F. Supp. 2d at 191-92. In declining to impose the remedy, the court observed that this provision "is so far removed from any liability in this case, it is difficult to understand the manner in which Plaintiffs believe such a provision will satisfy the objectives of an antitrust remedy." *Id.* at 192.

The same can be said about Plaintiffs' Investment Notification Requirement. The remedy is not tailored to fit Google's unlawful conduct, as the court's liability determination involved no anticompetitive acquisition or joint venture by Google. Granting Plaintiffs' request would be tantamount to attempting to restrain future violations of the antitrust laws that are not related to the unlawful acts, which the court cannot do. *See Zenith Radio,* 395 U.S. at 133.

D. Self-Preferencing Prohibitions

In Section V.B of their RPFJ, Plaintiffs ask the court to restrict Google from engaging in a wide array of "self-preferencing" behavior. *** Plaintiffs envision these restrictions as anti-circumvention measures. *** Plaintiffs cite various product integrations as examples of Google self-preferencing its own products. *** The court rejects Plaintiffs' self-preferencing prohibitions for reasons both legal and factual. First the legal problem. The self-preferencing actions that Plaintiffs seek to preemptively stamp out are not "of the same type or class as [the] unlawful acts" that the court found Google to have committed. *See Zenith Radio,* 395 U.S. at 132 (citation omitted). ***

The bar on self-preferencing also goes too far in that it would hamstring Google's ability to compete. Take, for example, Plaintiffs' proposal to prohibit Google from self-preferencing Gemini in Chrome. Such a restriction would set Google apart from its competitors. It is commonplace for companies in the GenAI space to leverage their own products to distribute their GenAI technologies. Meta, for instance, delivers its GenAI models through Instagram and

WhatsApp. xAI makes Grok available through X. Microsoft has integrated Copilot into Edge and Bing, both as a vertical and through Copilot Answers (Microsoft's AI-powered search feature analogous to Google's AI Overviews). And emerging GenAI companies are doing the same. Perplexity, for example, recently launched a web browser that integrates its own answer engine. The court will not hobble Google's competitiveness by prohibiting self-preferencing of its own GenAI technologies, when that is precisely how the emerging—and highly competitive—GenAI marketplace operates. ***

VI. EFFECTIVE DATE AND TERM OF FINAL JUDGMENT

The parties disagree about the term of the final judgment, as well as its effective date. *** The court believes that a six-year term is appropriate. That term accounts for the court's expectation that it will take one year to establish the Technical Committee and the processes necessary for execution. Among the administrative challenges the court envisions include (1) establishing guidelines to identify Qualified Competitors, (2) Google's development of any infrastructure needed to carry out its data-sharing and syndication obligations, and (3) the all-important application of privacy-enhancing techniques to anonymize User-side Data. *** As to the effective date, the final judgment shall take effect 60 days after it is entered, except as to those portions of Section X.A of the Plaintiffs' RPFJ that require the parties to take steps toward forming the Technical Committee and that address the start of its work, which will be effective immediately. ***

CONCLUSION

For the reasons discussed, the court accepts, with its modifications, Google's proposed remedies in full and adopts Plaintiffs' proposed remedies in part. The parties shall meet and confer and, by September 10, 2025, submit a revised final judgment that is consistent with this Memorandum Opinion. That revised final judgment shall reconcile Section III of Google's RPFJ and those portions of Plaintiffs' RPFJ, as modified, that the court has agreed to adopt. Any request for clarification or any dispute that may arise should be set forth in a Joint Status Report filed on that same date, which identifies the issue and sets out the parties' respective positions.