

Thoughts on *Google Search*: Ideology, models, and business common sense in antitrust analysis

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1. Much of recent antitrust scholarship and commentary falls prey to one of two intellectual tyrannies: the tyranny of ideology or the tyranny of the model.

2. Under the tyranny of ideology, antitrust law has increasingly been deployed, or it has been advocated that antitrust should be deployed, to support enforcement actions to target the largest firms in digital and other markets based principally on market share, with insufficient attention sometimes being paid to whether any such firm actually exercises pricing power or is engaging in practices that are anticompetitive after taking into account offsetting procompetitive effects.¹ Dismissal on summary judgment has been the typical outcome whenever current leadership at U.S. antitrust agencies has brought antitrust lawsuits that depart from governing case law, are not grounded in sound economic theories of competitive harm, or lack compelling evidence from real-world markets to support any such theory.²

3. Under the tyranny of the model, regulatory initiatives and enforcement actions have sometimes been undertaken based largely on theoretical models of competitive harm, with insufficient attention paid in some cases to whether those models actually describe the specific peculiarities of real-world markets. Unlike the ideological strain of antitrust enforcement, this model-driven approach can find significant support in academic scholarship that constructs artificial markets in which competitive harms can potentially arise under specified conditions. While the artificial worlds construed by economic models can play a useful role in initially guiding antitrust

analysis, they do not provide a reliable basis for ultimately undertaking antitrust enforcement without sufficient factual support that the model tracks actual competitive dynamics.

4. Judge Amit Mehta’s carefully reasoned opinion in *U.S. v. Google*,³ which I will call the “*Google Search*” case, admirably avoids the tyranny of ideology but falls prey in critical parts to the tyranny of the model. Reliance on the overriding effect of the “default bias,” mostly as set forth in the academic literature, and insufficient attention to on-the-ground competitive conditions in search markets render the court’s finding of a monopolization offense significantly vulnerable on appeal. I reach this view under the plaintiff-friendly assumption that the court correctly identified the antitrust-relevant market (which excludes several highly arguable sources of competitive discipline outside that market definition).

5. The district court made two principal findings: (i) Google has a monopoly in the “general search engine” (GSE) and “general text advertising” markets (but not the search advertising market), and (ii) Google illegitimately maintains that monopoly through a quasi-exclusive contractual agreement with Apple. Under that agreement, Apple agrees to preload the Google Search app in the Safari browser on iPhone devices in exchange for a share of the ad revenue generated through the search service.⁴ Given the scope of this contribution, I will focus on the court’s second finding as it pertains to the role purportedly played by the Apple/Google relationship

1 See, e.g., T. Wu, *The Curse of Bigness: Antitrust in the New Gilded Age*, Columbia Global Reports, New York, 2018; L. Khan, The New Brandeis Movement: America’s Antimonopoly Debate, *J. Eur. Competition L. & Prac.*, Vol. 9, Issue 3, 2018, pp. 131–132; L. Khan and S. Vaheesan, Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents, *Harv. L. & Pol’y Rev.*, Vol. 11, Issue 1, 2017, pp. 235–294.

2 J. M. Barnett, The Antitrust Revolution That Mostly Wasn’t and Probably Won’t Be, *Network L. Rev.*, June 2024.

3 *United States et al. v. Google LLC*, Memorandum Opinion, case No. 20-cv-3010 (APM) (D.D.C. Aug. 5, 2024), <https://www.tn.gov/content/dam/tn/attorneygeneral/documents/pr/2024/pr24-59-Google.pdf>

4 *Ibid.* at 204.

in preserving Google’s position in the GSE market.⁵ Assuming for the sake of argument that Google has a monopoly in the GSE market and that the GSE market is the relevant antitrust market,⁶ I will assess whether the factual record (including certain business realities overlooked by the court) supports the finding that the Apple/Google relationship constitutes an exclusionary practice that substantially preserves Google’s leadership in that market. I conclude that it most likely does not.

I. The disambiguation challenge

6. It is widely recognized that Google achieved its leadership in the GSE market by developing a breakthrough innovation that outperformed Yahoo!, the incumbent and one of the pioneers of the GSE market. Developed by Sergey Brin and Larry Page in the late 1990s, Google’s PageRank algorithm rendered largely obsolete existing directory-based search mechanisms and conferred market leadership on Google through the mechanism of user choice.⁷ That is an uncontroversially positive result from a competition policy perspective: a startup unseats an incumbent through a technological innovation that enhances product quality and consumer welfare.

7. Again assuming for the sake of argument that Google has a monopoly in the GSE market, the monopolization inquiry then turns on whether Google has subsequently maintained its leadership position through “competition on the merits,” or rather, has used exclusionary practices that distort competition by erecting entry barriers to actual or potential rivals. In particular, the opinion focuses on whether the relationship between Google and Apple—and, specifically, Google’s contractually secured position as the default search app on Apple devices—has impeded the ability of Microsoft’s Bing service, the only significant existing competitor in the GSE market, and other smaller rivals, to challenge Google’s search product.

8. The court’s monopolization finding stands and falls on whether the court has developed a factually compelling argument to “disambiguate” the challenged practice involving Apple and Google. That is: whether the court has identified persuasive factual support for the view that the Apple/Google default arrangement is an anticompetitive practice to block entry into the antitrust-relevant search market, rather than being a contractual arrangement that reflects innocuous or procompetitive business purposes. As is inherent to Section 2 monopolization

cases, this is not a matter in which certainty can be achieved. It is a matter of which interpretation best fits the available evidence concerning this practice, keeping in mind that the plaintiff (in this case, the government) bears the burden of showing the anticompetitive effects of a contested practice.⁸

9. Several facts, almost all of which are observed by the court, favor the interpretation that this practice most likely does not have a significant marginal adverse impact on competition, although it may have a significant adverse impact on particular competitors. Under the well-established “antitrust standing” requirement,⁹ only the former category of harm can support a cause of action in antitrust law.

II. Antitrust-relevant entry barriers

10. The court’s adverse interpretation of the Apple/Google arrangement as an entry barrier to actual or potential search providers may seem intuitively correct. An agreement between Apple and Google to treat Google Search as the default search app on billions of iPhone devices certainly seems like a barrier to entry, at least in the “Bainian” understanding that views virtually any positive cost as a barrier to entry for antitrust purposes.¹⁰ This once-prevalent approach had viewed everyday business practices such as marketing expenditures, infrastructure investments, R&D, and capital requirements as suspect practices or features that raise the costs of entry to actual or potential challengers.¹¹ It is now widely recognized (outside perhaps some commentators within the “New Brandeisian” school of thought) that this understanding of entry barriers sweeps too broadly since it would capture virtually any cost-reducing or quality-increasing innovation that cannot be immediately imitated by competitors. That would, in turn, disincentivize the development of such innovations and therefore injure consumers. To avoid this overenforcement effect, scholars and courts have sought to develop a definition of entry barriers that captures practices that impede the competitive process while excluding practices that arise organically out of that process.

11. In the specific context of monopolization offenses alleged under Section 2 of the Sherman Act, scholars have endeavored to develop a formulation of “exclusionary” practices that target practices that distort the competitive process by blocking equally or more efficient providers and, at least in some formulations, do

5 This contribution therefore excludes any assessment of Google’s contractual arrangements with other original equipment manufacturers (OEMs)—specifically, the “MADA/RSA” agreements addressed in the court’s opinion.

6 For reasons discussed subsequently, there is significant doubt whether the GSE market is the appropriate antitrust-relevant market, see *infra* note 30 and accompanying text.

7 For discussion, see J. M. Barnett, *The Big Steal: Ideology, Interest, and the Undoing of Intellectual Property*, Oxford Univ. Press, 2024, at 73–74; G. Press, *Why Yahoo Lost and Google Won*, *Forbes*, July 26, 2016.

8 *United States v. Microsoft*, 253 F.3d 34, 58 (D.C. Cir. 2001) (“[T]he plaintiff, on whom the burden of proof of course rests, must demonstrate that the monopolist’s conduct indeed has the requisite anticompetitive effect”) (citation omitted).

9 *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 486 (1977).

10 J. Bain, *Barriers to New Competition*, Harvard Univ. Press, Cambridge, 1956.

11 *Ibid.* at 3. For a leading critique, see H. Demsetz, *Barriers to Entry*, *Amer. Econ. Rev.*, Vol. 72, No. 1, 1982, pp. 47–57.

not give rise to offsetting efficiency gains.¹² In a decision that is closely relevant to the *Google Search* case, the D.C. Circuit in the landmark *Microsoft* litigation adopted the “equally efficient competitor” test in assessing the legality of Microsoft’s practice of bundling the operating system and browser.¹³ Even when exclusionary effects have been identified under this test, the *Microsoft* court made clear that a defendant may present evidence that a contested practice nonetheless gives rise to sufficient offsetting procompetitive benefits.¹⁴ Various forms of this balancing approach characterize the judicial treatment of exclusive dealing arrangements, which typically weighs the anti-competitive and procompetitive effects attributable to any such practice.¹⁵

12. This approach, in its various forms, has a long pedigree. Fifteen years before the Supreme Court adopted in the landmark *Sylvania* decision a balancing approach—as implemented through various forms of the “rule of reason”—for non-price vertical restraints, the Court adopted such an approach in assessing the legality of exclusive dealing arrangements.¹⁶ For the rest of this contribution, I will assess the antitrust treatment of the Apple/Google relationship under this fact-intensive approach that takes into account both anticompetitive and procompetitive effects reasonably attributable to a contested business practice.

III. Calibrating user inertia

13. It is important to clarify the basic point that the Apple/Google agreement solely pertains to the default position for the Google search engine on Apple devices, which is not equivalent to an agreement that selects Google as the only available search engine. Hence, users are free to choose any other search engine and will rationally do so whenever the expected benefits of using another search engine exceed the expected costs. As observed by the court, the costs faced by users in migrating from the default search app to any other search app are low, although apparently somewhat higher on mobile as compared to desktop devices.¹⁷ Absent any further assumption, it would therefore seem difficult

to assert that Google could expect that entering into a default arrangement with Apple could deter users from switching or using multiple search engines (a form of “multi-homing”). Put differently: if users can easily switch or multi-home, it is unclear how Google could expect that a default arrangement could be used to shield its leadership position from entry by equally or more efficient competitors.

14. To address this point, the government argued (and the court largely agreed) that users are purportedly reluctant to alter default settings¹⁸ (a so-called default bias), and therefore the Apple/Google arrangement acts as an effective entry barrier by deterring users from switching or multi-homing, which in turn discourages entry by other search providers. This position reflects a view advanced by the behavioral economics literature that individuals are “irrationally” reluctant to abandon a default even if the switching costs are low.¹⁹ That is: a psychological bias distorts the standard cost-benefit calculus that would otherwise enable competing superior alternatives to enter the market. This literature reflects a low estimation of users’ ability to reasonably assess competing alternatives and an implicitly high estimation of “expert” observers (whether academics, judges, or regulators) to do so in users’ place.

15. It is hardly controversial to assert that individuals tend to prefer the status quo, rather than taking a risk on, and incurring the costs of, migrating to an untested alternative. Yet there does not appear to be a compelling basis for the view that default arrangements necessarily impose psychological costs that are sufficiently high to deter entry in the face of equally or more efficient alternatives, especially if switching and multi-homing costs are low. If switching costs are sufficiently low, then a default bias may not prevent users from migrating to, or making concurrent use of, as or more efficient alternatives. Following this calibrated approach, the strength of the default bias over user choice will be expected to vary in different markets and it therefore cannot be assumed—as some antitrust commentary on platform tech markets suggests²⁰—that consumer inertia induced by default bias uniformly shields existing leaders from competition posed by superior alternatives. If that assumption were maintained, then it would implausibly follow that any market in which users are accustomed to an incumbent’s product would be shielded from competition. Reconfigured in the language of behavioral economics, this view bears a strong resemblance to the discredited Bainian view that almost any practice undertaken by an incumbent to maintain its leadership position is an illegitimate entry barrier that antitrust law should remove.

12 R. A. Posner, Exclusionary Practices and the Antitrust Laws, *Univ. Chicago L. Rev.*, Vol. 41, Issue 3, 1974, pp. 506–535; G. Werden, Identifying Exclusionary Conduct under Section 2: The “No Economic Sense” Test, *Antitrust L.J.*, Vol. 73, No. 2, 2006, pp. 413–433.

13 *U.S. v. Microsoft*, 253 F.3d at 58.

14 *Ibid.* at 59.

15 A. F. Abbott and J. D. Wright, Antitrust analysis of tying arrangements and exclusive dealing, in *Antitrust Law & Economics*, K. N. Hylton (ed.), Encyclopedia of Law & Economics Vol. 4, 2d ed., Edward Elgar Publishing, Cheltenham, 2010, at 191–198; J. M. Jacobson and S. M. Sher, “No Economic Sense” Makes No Sense for Exclusive Dealing, *Antitrust L.J.*, Vol. 73, No. 3, 2006, pp. 779–801.

16 On exclusive dealing, see *Tampa Electric Co. v. Nashville Coal Co.*, 365 U.S. 320 (1961); on vertical non-price restraints, see *Continental Television v. GTE Sylvania*, 433 U.S. 36 (1977).

17 *United States et al. v. Google LLC* at 28–29.

18 *Ibid.* at 26.

19 *Ibid.* 30 (quoting plaintiffs’ expert report claiming that “defaults have a powerful impact on consumer decisions”).

20 See, e.g., Stigler Committee on Digital Platforms: Final Report, 2019, at 8 (“Consumers tend to stick with default options” and “[f]raming, nudges, and default options can direct consumers to choices they regret”).

16. Even a cursory survey of technology history suggests that default bias varies based on switching costs—which suggests that any such “bias” may be a rationally adaptive heuristic rather than an irrational deviation from cost-benefit analysis. In certain markets that require significant investments by users—for example, the adoption of the Windows operating system by original equipment manufacturers (OEMs) in the PC market—that assumption may hold true; in other markets, however, that assumption rests on weaker factual ground. This variation in the strength of user inertia may explain both why the Windows operating system has maintained leadership in the PC market for decades and why Blackberry and Nokia rapidly forfeited leadership in the mobile phone market following entry by Apple and Android device makers that offered more attractive products. Moreover, it is easy to find examples where most or some users reject default settings. For example, while Apple preloads Apple Maps as the default geolocation application on the iPhone, it is reported that “*the overwhelming majority of iPhones in the U.S. have Google Maps downloaded as an alternative.*”²¹ Contrary to artificial markets in which incumbents are protected by default bias, real-world markets suggest that users often do switch to, or multi-home among, competing providers in platform or app markets. Perhaps users are not always as “irrational” as is presumed in the behavioral economics models on which the court’s opinion substantially relies.

IV. Three inconvenient facts

17. The interaction between switching and multi-homing costs, on the one hand, and users’ default bias, on the other hand, can be applied to assess the effects on competition reasonably attributable to the Apple/Google arrangement. As I discuss below, much of the evidence considered by the court favors the conclusion that GSE users typically face low switching and multi-homing costs, so that default bias should be a weak constraint under this calibrated approach. Nonetheless, the court takes the conclusory view that the Apple/Google relationship induces a default bias that deters challenges from equally or more efficient GSE providers.²² Three inconvenient sets of facts—almost all of which appear in the court’s opinion—challenge this view.

21 For additional discussion, see A.-M. Alcántara, *People Have Begun to Love Apple’s Most Hated Product*, *Wall St. J.*, July 17, 2023.

22 *United States et al. v. Google LLC* at 33 (a “GSE’s placement as the default thus drives search volume through that access point”).

1. Inconvenient fact #1: Google’s innovation performance

18. Google’s entry into the GSE market reflected its innovation outperformance, as compared to Yahoo!, the market leader at the time.²³ While the court finds that Google has secured a monopoly position in the GSE market, it rejects the government’s contention that Google has underinnovated as a result of allegedly being shielded from competition. Reflecting Judge Mehta’s even-handed approach, the opinion recognizes Google’s record of continuous improvement and innovation in search technology.²⁴ While this observation does not by itself settle the disambiguation exercise that stands at the heart of this litigation, it weighs against a monopolization finding since it recognizes that Google’s predominance in the GSE market substantially derives from the fact that Google both introduced a superior product and then continuously invested in improving it. At a minimum, this does not appear to be a classic case of the “slothful” incumbent underinvesting in product quality after having erected a barrier to entrants. Moreover, Google’s continuing investment in search technology even after establishing market leadership suggests that it does face some degree of competitive discipline from other sources of search services (such as Amazon, ChatGPT and TikTok) that are artificially excluded from the opinion’s market definition.²⁵

2. Inconvenient fact #2: Bing’s search quality

19. Microsoft’s Bing service is the only remaining significant competitor to Google in the GSE market (as defined by the court), with the remaining market share held by DuckDuckGo and Yahoo!. Since its inception in 2009, Bing has failed to capture significant market share from Google (especially in the mobile market), despite extensive investments by Microsoft. The disambiguation exercise requires an effort to assess whether this failure principally reflects Google’s default position on Apple devices or, rather, a combination of outperformance by Google and underperformance by Microsoft. While the court describes evidence showing that Bing purportedly now matches the performance of Google Search on desktop devices,²⁶ these findings stand in tension with the court’s other statements that Google has the highest search quality,²⁷ that Microsoft failed to invest suffi-

23 See *supra* note 7.

24 *United States et al. v. Google LLC* at 199–200, 247.

25 Recent evidence shows that Google is losing significant share in the search advertising market once some of these other services are included, see S. Vranica and M. Kruppa, *Google’s Grip on Search Slips as TikTok and AI Startup Mount Challenge*, *Wall St. J.*, Oct. 5, 2024.

26 *United States et al. v. Google LLC* at 229.

27 *Ibid.* at 199.

ciently in mobile search,²⁸ and that Microsoft has reduced its investment in R&D to support the Bing service.²⁹ While this evidence does not settle the disambiguation exercise, it suggests that Bing's failure to penetrate significantly the GSE market reflects principally a shortfall in product quality, rather than an alleged inability to access users due to the default arrangement between Google and Apple.

3. Inconvenient fact #3: User choice experiments

20. If the Apple/Google default arrangement is blocking users from migrating to “as or more efficient” providers in the GSE market, then it would follow that, if the default were removed, a significant number of users would abandon Google Search. Two real-world quasi-experiments can provide some insight into the empirical support for this hypothesis. First, in the EU, mobile device makers have been required since 2020 to offer users a menu of search engines, which is designed to remove the purported default bias that favors the existing market leader, and Google apparently implemented the required “choice screen” starting in September 2021.³⁰ The results do not support the underlying rationale behind this requirement: after introduction of the menu, the percentage of users that selected Google as their search engine remained approximately the same (about 98%).³¹ Again, the underlying presumption that antitrust law should intervene to “rescue” users from a purported default bias stands at odds with actual user behavior.

21. Second, in the PC market, most OEMs preload the Windows operating system, which integrates Internet Explorer and Bing as the default browser and search engine. Yet, as the court observes, most Windows users elect to switch away from these defaults, principally to the Chrome browser and Google search engine.³² About 80% of Windows users switch away from Bing for Google Search (and mostly access Google through the Chrome browser, indicating that Windows users also generally abandon Edge).³³ This is highly suggestive evidence that default bias does not constrain user choice when the non-default service (being Google Search and the Chrome browser in the Windows environment) offers sufficiently superior quality and, by comparison, the costs of moving or multi-homing to the non-default service are sufficiently low.

28 Ibid. at 200.

29 Ibid. at 239.

30 F. Decarolis and M. Li, Regulating online search in the EU: From the android case to the digital markets act and digital services act, *Int'l J. Ind. Org.*, Vol. 90, 2023, 102983.

31 Ibid.

32 *United States et al. v. Google LLC* at 229.

33 Ibid. at 32.

V. Default arrangements as a make/buy choice

22. The court's conclusion that the Apple/Google default arrangement is a significant factor behind Google's persistent leadership in the GSE market must stand in serious doubt. If it is true that, as the court itself observes, (i) Google has continuously improved product quality, (ii) Bing, Yahoo! and other providers fail to match the quality of Google Search, and (iii) when offered a choice, users overwhelmingly still choose Google, then it is challenging to accept the court's conclusion that, but for the default arrangement, there would be significantly greater competition in the GSE market.

23. Yet this begs a critical question. Assuming that the default arrangement does not play a material role behind Google's persistent leadership in the GSE market (as defined by the court), then why is Google prepared to share with Apple a significant portion of its search ad revenue? Relatedly, is there a procompetitive or competitively innocuous reason behind this arrangement? To address these related questions, it is helpful to reconsider the Apple/Google arrangement as the outcome of “make/buy” choices by each of the parties to the transaction.³⁴ To deliver search services to users, Apple can build its own search service (“make”) or it can secure that service from an external supplier (“buy”). To monetize its investment in search technology, Google can build its own communications and computing device (“make”) or it can license its service to existing device makers (“buy”). Both companies have ample resources to choose “make” but have mostly elected “buy” (Google has entered but largely failed in the mobile device and desktop device markets and, as the court observes, Apple has internal search functionalities for its devices’ “Spotlight” and “Siri Suggestions” functions.³⁵) These make/buy choices presumably reflect each company's cost/benefit comparison of different strategies to extract revenues from the search-user market.

24. This characterization of the Apple/Google relationship resembles Apple's relationship with the providers on its App Store platform, which similarly pay Apple a certain percentage (typically, one-third) of the revenue earned by the provider through the platform. There is one difference, however, that requires consideration. In Google's case, Apple preloads Google as the default application on the iPhone device, for which Apple presumably can negotiate a higher percentage of the ad revenue. This position may be valuable for Google just as it is valuable for consumer-goods brands to pay for preferential

34 This reconceptualization of the Apple/Google arrangement follows in the lines of Oliver Williamson's famous reconceptualization of vertically integrated structures in make/buy terms. See O. E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*, Free Press, New York, 1975.

35 *United States et al. v. Google LLC* at 105.

display at a retail chain. That common practice in bricks-and-mortar retail markets does not typically raise antitrust concerns absent foreclosure effects (especially if shelf space is open to bidding within a reasonable time period).³⁶ In the search market, foreclosure effects are arguably lower than a physical environment since users can switch to alternative search providers or multi-home among several providers concurrently. The default arrangement may be valuable for Apple if Google is expected to generate a high volume of ad revenue, which will translate into a higher payment for Apple under its revenue-sharing agreement with Google. Again, whether Apple secures search services externally and whether Google elects to embody its technology in third-party devices are presumptively business decisions that impact the split of revenue flows between the platform operator (Apple) and the search-service provider (Google) but should not raise competition concerns unless it meaningfully impedes users from switching or multi-homing to “as or more efficient” providers (and lacks any offsetting procompetitive effects). For reasons discussed previously, this does not appear to be the case, based principally on the court’s own factual record.

VI. Conclusion

25. This contribution has assumed for the sake of argument that the court correctly found that Google has a monopoly position in the GSE market and that the GSE market (as defined by the court) is the antitrust-relevant market. That market definition favors the government’s case since it excludes major providers of vertical search services (for example, Amazon in online shopping and Expedia in travel), major social media platforms with search-like capacities (such as TikTok), and generative search services (such as ChatGPT).³⁷ Even under this generous assumption, there are significant reasons to doubt the court’s finding that Google has preserved its position in the GSE market principally through the Apple/Google default agreement. The failure of Bing and other providers to capture significant share in the GSE market appears to be mostly attributable to a failure to match Google’s innovations in search, rather than the default arrangement between Apple and Google. Moreover, that arrangement appears to reflect make/buy choices concerning the relative efficiency of sourcing different components of the “device-plus-search” product bundle internally or externally. If that is the case, then the Apple/Google relationship appears principally to have distributional effects on the contracting parties without impeding the competitive process in a manner that warrants antitrust intervention. ■

36 B. Klein and J. D. Wright, *The Economics of Slotting Contracts*, *J. L. & Econ.*, Vol. 50, No. 3, 2007, pp. 421–454.

37 See *supra* note 25.