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**If Search Neutrality is the Answer, What's the Question?**

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## INTRODUCTION

In recent months a veritable policy frenzy has erupted around Google generally, and more specifically concerning how its search activities should be regulated by government authorities around the world in the name of ensuring “search neutrality.” Concerns with search engine bias – a term we use to describe the activities of a search engine exercising its editorial discretion in a manner that advantages its own or affiliated content or that disadvantages rivals – have led to a menu of proposed regulatory reactions including the application of standard merger analysis under the antitrust laws, the creation of a “Federal Search Commission” to investigate and regulate Internet search providers, and even the creation of a government-sponsored “public option” for search.

The debate has focused intensely upon these and other proposed remedies to the “problem” presented by a range of Google’s business decisions. Unfortunately, this debate has largely missed the predicate question of whether search engine bias is the product of market failure or otherwise generates significant economic or social harms meriting regulatory intervention in the first place. “Search neutrality” by its very terminology *presupposes* that the solution – mandatory neutrality or some imposition of restrictions on search engine bias – is desirable, but advocates of search neutrality have failed to demonstrate that there is a problem necessitating any of the various prescribed remedies.

In this paper we evaluate both the economic and non-economic costs and benefits of search bias. In Part I we define search bias and search neutrality, terms that have taken on any number of meanings in the literature, and survey recent regulatory concerns surrounding search bias. In Part II we discuss the economics and technology of search. In Part III we evaluate the economic costs and benefits of search bias. We demonstrate that search bias is the product of the competitive process and link the search bias debate to the economic and empirical literature on vertical integration and the generally-efficient and pro-competitive incentives for a vertically integrated firm to discriminate in favor of its own content. Building upon this literature and its application to the search engine market, we conclude that neither an ex ante regulatory restriction on search engine bias nor the imposition of an antitrust duty to deal upon

Google would benefit consumers. In Part V we evaluate the frequent claim that search engine bias causes other serious, though less tangible, social and cultural harms. As with the economic case for search neutrality, we find these non-economic justifications for restricting search engine bias unconvincing, and particularly susceptible to the well-known Nirvana Fallacy of comparing imperfect real world institutions with romanticized and unrealistic alternatives.

## I. Defining “Search Neutrality” and “Search Bias”

The term “search neutrality” – increasingly wielded by scholars, regulators, and policymakers offering new regulations on internet search providers – conceals a latent presumption. To describe an outcome as “neutral” is to explain it in relation to some other position(s): neither favoring one outcome nor another. In law and policy, neutrality implies system-wide indifference.<sup>1</sup> Describing search neutrality presumes both a natural and correct conclusion to search outcomes as well as some biasing of those outcomes. Search neutrality, for good or ill, embraces a variety of policies designed to restore equipoise from distortion; it is a proposed remedy to the presumed problem of search bias. Any evaluation of search neutrality must therefore begin by identifying – and estimating the costs of – search biases before establishing the contours and likely consequences of search neutrality.

Establishing “search bias” requires reference to economic first principles. Scarcity necessarily and fundamentally constrains the output of any search engine; the technological borderline-omniscience of Google may only return so many “hits,”<sup>2</sup> and basic logic and basic physics require that there is only one first search result, only one second search result, and so on. Observers generally acknowledge this phenomenon by conceding that search engines must somehow distinguish relevant results from irrelevant results.<sup>3</sup> With the rise of the “Google bomb” – where users deliberately link disfavored pages to humorous or satirical key terms in order to deliberately skew results<sup>4</sup> – even this necessary sorting mechanism requires some measure of discretion.

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<sup>1</sup> BRYAN A. GARNER, BLACK’S LAW DICTIONARY 1140 (9th ed. 2009).

<sup>2</sup> Viva R. Moffat, *Regulating Search*, 22 HARV. J.L. & TECH. 483 (2009).

<sup>3</sup> Oren Bracha & Frank Pasquale, *Federal Search Commission? Fairness, Access, and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149, 1165 (2008); James Grimmelmann, *Some Skepticism About Search Neutrality*, in THE NEXT DIGITAL DECADE 435, 442-43 (2010); Urs Gasser, *Regulating Search Engines: Taking Stock and Looking Ahead*, 9 YALE J.L. & TECH. 124 (2006).

<sup>4</sup> Frank Pasquale, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, 2008 U. CHI. LEGAL F. 263 (2008).

Search engines must also distinguish viable, consumer-friendly content from “link farms” and “spam logs,” pages designed through inductive reference to search engines’ algorithms to manipulate fully automated search rankings.<sup>5</sup> Even the most strident advocates of search neutrality generally concede that managing search results in these ways does not constitute impermissible search bias, whatever the meaning of the term.

As used by advocates of search neutrality, search bias typically refers to rankings based on some principle *other* than automated relevance. Adam Raff of Foundem describes search bias as an editorial policy that generates search rankings in any way except to yield comprehensive, impartial, and relevant returns, while Bracha and Pasquale deem any phenomenon that “involve[s] the manipulation or shaping of search engine results” as bias.<sup>6</sup> Concerned regulators, including the European Commission, typically focus on search rankings that benefit the host search engine: while avoiding the term ‘search bias,’ the European Commission describes its inquiry into Google in relevant part as conduct “lowering the ranking of unpaid search results” relative to paid advertisements.<sup>7</sup> Search neutrality advocates have not formed a clear consensus as to whether a search engine’s search results must reflect a benefit to the search engine to constitute impermissible search bias; one key issue in applying any search neutrality regime, therefore, lies in distinguishing between search results that lead to consumer-friendly effects versus those which harm consumers at large.

Search bias may be understood more easily by reference to the problems search neutrality advocates cite in proposing governmental regulation. These problems may be broadly classified in two channels: (1) competition law and antitrust problems arising from “non-objective” search results, and (2) transparency-based, social and cultural issues flowing from consumer use of search engines with “non-objective” results.<sup>8</sup> The former group generally focuses on potentially harmful effects to other

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<sup>5</sup> Spam Blogs or Splogs are websites designed to link to advertisements or raise the PageRank of affiliated websites. These sites use software to copy nonsensical text that raises the chance that they will be indexed, searched and clicked on. These websites are frequently returned on search engines and almost never relevant. See Charles C. Manne, *Spam + Blogs = Trouble*, WIRED (September 2006), <http://www.wired.com/wired/archive/14.09/splogs.html>.

<sup>6</sup> Adam Raff, *Search, but You May Not Find*, N.Y. TIMES, (December 27, 2009), <http://www.nytimes.com/2009/12/28/opinion/28raff.html>; Bracha & Pasquale, *supra* note 3 at 1167.

<sup>7</sup> Press Release, Europa, Antitrust: Commission Probes Allegations of Antitrust Violations by Google, (November 30, 2010), *available at* <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1624>.

<sup>8</sup> For a discussion of the insufficiency of current antitrust law to search engines, see Frank Pasquale, *Dominant Search Engines: An Essential Cultural & Political Facility*, in THE NEXT DIGITAL DECADE 401, 402 (2010). For a discussion of the threat that search bias poses to democracy, see generally Bracha & Pasquale,

firms as a result of a search engine's editorial and algorithmic decisions, while the latter emphasizes negative social effects.

Antitrust regulators, Google's rivals, and some scholars propose a gamut of theories of competitive harm from search bias. Several of these theories postulate that certain editorial decisions (whether manual or incorporated into a search engine's algorithm) constitute "monopolization" under American or European competition law. Of these monopolization theories, one argument tracks the "essential facilities" line of cases to propose that popular search engines, especially Google, act as a 'bottleneck' to access of websites to consumers.<sup>9</sup> Under the relevant American line of cases, denial of access to such a resource could ground antitrust liability when a monopolist controls a resource essential to competing in a given market, duplicating that resource is practically impossible, and the monopolist denies rivals access to that facility though shared use with competitors is viable.<sup>10</sup> Applied to a search engine, the essential facilities theory supposes that Google essentially operates as a bottleneck to the Internet: that Google can effectively determine which end websites ultimately succeed and which fail.<sup>11</sup> Search neutrality advocates claim that by using this power against rivals, Google effectively excludes nascent search websites and competitors from both advertising revenue and sales from consumers.<sup>12</sup>

An alternate, but related, monopolization theory instead claims that Google disadvantages its rivals by raising their costs relative to its own. This theory holds that Google uses its prominence as a search engine to favor other related Google ventures; Google effectively uses its primary search engine product to encourage consumer use of its mail, calendar, and marketplace platforms.<sup>13</sup> By directing search traffic to its own products, this theory posits, Google effectively discriminates against rivals and forces those rivals into more expensive substitute distribution channels.<sup>14</sup> Several studies

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*supra* note 3, at 1171-73. For a discussion of transparency issues see James Grimmelman, *The Structure of Search Engine Law*, 93 IOWA L.R. 1 (2007).

<sup>9</sup> Pasquale, *supra* note 8.

<sup>10</sup> THOMAS F. COTTER, *THE ESSENTIAL FACILITIES DOCTRINE, ANTITRUST LAW AND ECONOMICS* 1-2 (2008).

<sup>11</sup> Pasquale, *supra* note 8.

<sup>12</sup> Amir Efrati, *Rivals Say Google Plays Favorites*, WALL ST. J. (December 12, 2010), <http://online.wsj.com/article/SB10001424052748704058704576015630188568972.html>.

<sup>13</sup> Steven Pearlstein, *Time to Loosen Google's Grip?*, WASH. POST, December 14, 2010, 11:25 PM, <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/14/AR2010121408341.html>.

<sup>14</sup> Greg Sterling, *Once Again Should Google be Allowed to Send Itself Traffic?*, SEARCH ENGINE LAND (December 13, 2010, 8:28 AM), <http://searchengineland.com/once-again-should-google-be-allowed-to-send-itself-traffic-58543>. Daniel Lyons, *They Might Be a Little Evil*, NEWSWEEK, June 1, 2009.

analyze various key terms used through major search engines to conclude that search providers systematically skew results in favor of their own products, promoting their own downstream interests.<sup>15</sup> These critics speculate that such a bias harms rivals through foreclosing them to critical inputs – such as access to internet consumers – or through forcing rivals to spend substantially more on distribution channels than would be possible through ‘unbiased’ search results.<sup>16</sup>

The evolving technological backdrop of search engines in specific and the internet more generally complicate each of these anticompetitive theories. Both proponents and opponents of intervention into or regulation of search engines acknowledge that robust innovation remains the *sine qua non* of novel consumer welfare benefits from search engine technology.<sup>17</sup> Search engines necessarily lower transaction costs, information costs, and search costs in ways unforeseeable as recently as ten years ago. The rise of the search engine has heralded entirely new business models and firms, each of which has increased consumer welfare through greater product differentiation, lower consumer prices and costs, and increased quantities of desirable products. In order to preserve these consumer welfare gains, however, proponents and opponents of antitrust intervention into search engine markets must account for potential incentives and disincentives to innovate by prohibiting a competitive practice among search engines. The potential competitive effects of deeming one type of search manipulation impermissible bias versus another as permissible sorting must necessarily inform any definition of search bias.

Search neutrality advocates also advance a number of transparency and cultural arguments to suggest that search result alteration constitutes impermissible search bias. These arguments typically begin from the premise that as the Internet has risen to prominence as an information distribution mechanism, search engines increasingly act

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<sup>15</sup> See Benjamin Edelman & Benjamin Lockwood, *Measuring Bias in “Organic” Search*, available at <http://www.benedelman.org/searchbias/>. See also *Background to EU Formal Investigation*, SEARCHNEUTRALITY.ORG, Nov. 30, 2010, <http://www.searchneutrality.org/foundem-google-story/eu-launches-formal-investigation/>. But see Danny Sullivan, *Study: Google “Favors” Itself Only 19% of the Time*, SEARCH ENGINE LAND (January 19, 2011, 5:22 PM), <http://searchengineland.com/survey-google-favors-itself-only-19-of-the-time-61675>.

<sup>16</sup> See Pearlstein, *supra* note 13; Efrati, *supra* note 12; Raff, *supra* note 6.

<sup>17</sup> See, e.g., Urs Gasser, *Regulating Search Engines: Taking Stock and Looking Ahead*, 9 YALE J.L. & TECH. 124 (2006); Bracha & Pasquale, *supra* note 3, at 1186-87; Eric Goldman, *Search Engine Bias and the Demise of Search Engine Utopianism*, 8 YALE J.L. & TECH. 188 (2006).

as the modern gatekeepers of that information.<sup>18</sup> Search engines closely guard their algorithms as trade secrets; accordingly, popular search engines refuse to fully disclose the methods by which they weight and rank search results.<sup>19</sup> Google’s search algorithm is perhaps the most famous of these secrets.<sup>20</sup> Critics of search bias claim that these unknown formulas lead to a “black box” effect: consumers neither know the method through which search results are computed prior to any assigned ‘bias’ nor any deliberate adjustments search engines make.<sup>21</sup> Early courts addressing search engines’ rights to alter their search results formulas regarded search results as speech protected under the First Amendment.<sup>22</sup> Transparency advocates liken search engines to a public good, stating that regardless of the protected characteristics of search result ‘speech,’ search engines enjoy an asymmetry of information and power necessitating some sort of governmental authority to monitor socially undesirable conduct.<sup>23</sup>

Each of these concerns revolves around a search engine deploying its algorithm or applying editorial discretion to advantage itself or disadvantage rivals. Yet the word ‘bias’ in search bias is pejorative and implies some sort of malign effect. As described above, however, many examples indicate that some deviations from “standard” or “organic” search results (aimed at deterring spam or link farms, for example) yield obviously benign results, including results beneficial to individuals totally unrelated to search engine providers.<sup>24</sup> Concerns over “search bias” must necessarily account for these externally favorable alterations. Multiple consumer anecdotal reports indicate that instances of search bias – defined as editorial control that may favor a search engine’s own products – reduce searching costs and increase consumer enjoyment of popular search engines.<sup>25</sup> Consumers appreciate search engines’ reduction of “drivel”

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<sup>18</sup> Gasser, *supra* note 17.

<sup>19</sup> Grimmelmann, *supra* note 8, at 21.

<sup>20</sup> Steven Levy, *Exclusive: How Google’s Algorithm Rules the Web*, WIRED, (Feb. 22, 2010, 12:00 PM), [http://www.wired.com/magazine/2010/02/ff\\_google\\_algorithm/all/1](http://www.wired.com/magazine/2010/02/ff_google_algorithm/all/1).

<sup>21</sup> Bracha & Pasquale, *supra* note 3, at 1202.

<sup>22</sup> *Kinderstart.com, LLC v. Google, Inc.*, 2006 WL 831806 (June 30, 2006 N.D.Cal.). *Langdon v. Google, Inc.*, 474 F.Supp.2d 622 (D. Del 2007). *Search King, Inc. v. Google Tech., Inc.*, No. Civ 02-1457, 2003 WL 21464568 (W.D. Okla., May 27, 2003).

<sup>23</sup> Goldman, *supra* note 17.

<sup>24</sup> For another example, Google indicates that local search is often “manipulated” to direct people to local business in the surrounding community, as they seem to want. See Carter Maslan, *Local Search: It’s All About the Best Answers for Users*, GOOGLE PUBLIC POLICY BLOG, (December 13, 2010, 2:03 AM), <http://googlepublicpolicy.blogspot.com/2010/12/local-search-its-all-about-best-answers.html>.

<sup>25</sup> Amir Efrati, *supra* note 12.

or irrelevant links,<sup>26</sup> and novel sites with original content and with no relationship to search engines whatsoever often benefit from additional popularity due to the adjustment of search results.<sup>27</sup> A comprehensive definition of search bias for purposes of evaluating search neutrality must account for these positive effects of search engines' decisions to deviate from some imagined Platonic ideal of "organic," or unadulterated, search results.

Moreover, as the discussion above suggests, the very concept of bias in this context, defined against the backdrop of some objective ideal, is deeply problematic. Alleged bias occurs not only from direct manipulation of algorithmic results, but may be built into the algorithm itself and thus nearly impossible to recognize. Search results and ad space are scarce and some mechanism must be deployed to ration them (including via the price mechanism, in the case of advertisements), but there is an enormous range of possible "objective" arrangements for this rationing. Relevance is a slippery and subjective concept, different for every user and every query, and there is no *a priori* way to define it; as with pro- and anti-competitive conduct, it can be nearly impossible to differentiate between "relevant" and "manipulated" search results. Finally, and perhaps most importantly, search results may be offered in innovative ways, and it is a deep conceptual mistake to differentiate between so-called search products. In other words, search engines offer up results in the form not only of typical text results, but also maps, travel information, product pages, books, social media and more. To the extent that alleged bias turns on a search engine favoring its own maps, for example, over another firm's, the allegation fails to appreciate that text results and maps are variants of the same thing, and efforts to restrain a search engine from offering its own maps is no different than preventing it from offering its own search results.

Search neutrality must therefore be considered as a regulatory intervention designed to rectify these biases – calling forth familiar doctrinal concerns in determining the propriety of any remedy. Specifically, we define search neutrality as the *a priori* restriction of search engines against delivering search results intended to benefit affiliated content or harm rival content. Advocates of search neutrality must

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<sup>26</sup> *The Google Algorithm*, N.Y. TIMES (July 14, 2010), <http://www.nytimes.com/2010/07/15/opinion/15thu3.html>.

<sup>27</sup> Goldman, *supra* note 17.

therefore address the potential administrative costs of any search neutrality regime as well as the potential error costs from incorrect regulation or classification of a site within “organic” searches. Even advocates of relatively strict neutrality regimes attempt to sort benign forms of search bias from self-interested forms: the former is usually deemed a principle of perceived “relevance.”<sup>28</sup> The error costs of false negatives and false positives in the incorrect classification of websites, as well as additional search costs, must be considered by potential regulators. Furthermore, any potentially beneficial gains from search bias, broadly conceived, must be weighed against the net harms avoided. It is impossible to effectively evaluate these costs and harms without a detailed understanding of both the technological and economic regime governing search engines; accordingly, we next turn to discussing each.

## II. Economics and Technology of Search

Search engines generate two classes of results in response to an inquiry: “organic” or “natural” search results and advertiser-sponsored links.<sup>29</sup> Organic results cost nothing to the websites they link, regardless of source; search algorithms generally organize organic results by relevance.<sup>30</sup> Google, for example, determines a website’s relevance in part by the number of websites that link to it.<sup>31</sup> Sponsored links pay a search engine directly for premium placement; the fees for such placement often depend on the relevant keywords linked to the advertisement as well as the number of “click-through” customers the website draws.<sup>32</sup> A search engine user, upon entering her search terms, is simultaneously delivered an organic search results list and a paid search results list in descending order by value.<sup>33</sup>

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<sup>28</sup> Raff, *supra* note 6.

<sup>29</sup> Geoffrey A. Manne & Joshua D. Wright, *Google and the Limits of Antitrust: The Case Against the Case Against Google*, 34 HARV. J.L. & PUB. POL’Y 171 (2011), available at <http://ssrn.com/abstract=1577556>. See also Grimmelmann, *supra* note 8, at 13.

<sup>30</sup> See *How Google Works*, GOOGLE GUIDE (last modified Feb. 2, 2007), [http://www.googleguide.com/google\\_works.html](http://www.googleguide.com/google_works.html); Manne & Wright, *supra* note 29.

<sup>31</sup> *How Google Works*, *supra* note 30. Leading “organically” to, among other things, “Google bombing” which is a phenomenon where groups of people or programs artificially link specific terms to search results. The most famous example was liberal political groups linking the name “George W. Bush” to the search result “miserable failure.” See Noam Cohen, *Google Halts “Miserable Failure” Link to President Bush*, N.Y. TIMES (Jan 29, 2007), <http://www.nytimes.com/2007/01/29/technology/29google.html>.

<sup>32</sup> Manne & Wright, *supra* note 29.

<sup>33</sup> Pasquale, *supra* note 8; Manne & Wright, *supra* note 29.

This value depends upon complicated technological and language models designed to evaluate the relative value of linked pages.<sup>34</sup> These search algorithms generally parse out the content of the websites themselves to best answer a user's inquiry. They then attempt to ascertain the context and nature of the user's question in order to determine what factors – such as date, age of source, credible websites linking to the site in question, and so on – should sort the relevant results.<sup>35</sup> In the case of paid results, some search engines price advertising costs in part on the nature of the page to be advertised; the greater difference between that page's organic result and the desired keyword metric, the greater the advertising costs.<sup>36</sup> Search engine users are not charged for using either organic or paid links to pages.<sup>37</sup>

For paid results, this relative weighting system effectively disciplines both advertisers and the search engine itself. The “click-through” pricing mechanism in part necessitates this result. In a flat pricing system, a less-relevant result could afford to bid highly on a popular website keyword, such as Coca-Cola.<sup>38</sup> For example, Pepsi would obviously prefer to be the first website shown when users search for Coca-Cola, but Pepsi could expect that, on average, users searching for Coca-Cola would find Pepsi's website less relevant than Coca-Cola's, and would therefore click on Pepsi's link less. Due to click-through revenues, this leads to a lower expected cost to Pepsi in bidding on the relevant keywords for Coca-Cola. At the same time, under a flat pricing system, a small difference in marginal price for Coca-Cola could lead to a large aggregate increase through the larger number of user visits as, on balance, users searching for Coca-Cola would likely find the Coca-Cola website more relevant than Pepsi's. This distortion can potentially degrade the search engine experience as users find themselves directed to lower-quality links. The price weighting system forces potential advertisers to internalize some of the costs of this degradation by charging proportionally more the

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<sup>34</sup> Manne & Wright, *supra* note 29. Search engines use complex proprietary “ranking algorithms.” Goldman, *supra* note 17.

<sup>35</sup> Manne & Wright, *supra* note 29, at 171; Udi Manber, *Introduction to Google Search Quality*, OFFICIAL GOOGLE BLOG (May 20, 2008, 6:20 PM), <http://googleblog.blogspot.com/2008/05/introduction-to-google-search-quality.html>.

<sup>36</sup> Manne & Wright, *supra* note 29, at 171.

<sup>37</sup> *How Google Works*, *supra* note 30.

<sup>38</sup> HOWIE JACOBSON, *GOOGLE ADWORDS FOR DUMMIES* 1–3 (2d ed. 2009).

greater the difference between the desired result's spot and the organic relevance of the website in question.<sup>39</sup>

Search engines must price-discipline potential advertisers as they encounter price-discipline through competing distribution channels.<sup>40</sup> In colloquial use, Google, Microsoft, and Yahoo! comprise virtually the entire American "search market;"<sup>41</sup> however, the economic analysis is far less clear. Search engines compete vigorously with both online and offline firms for influence with consumers. Within the online world, search engines compete with one another as well as non-search engine sources. For example, a majority of search engine users rely on multiple search engines, as Google often points out.<sup>42</sup> While a number of computer users begin with a search engine as an access point to the Internet, many more do not.<sup>43</sup> Social networking websites, such as Facebook (which has now displaced Google as the most visited site on the Internet), Myspace, and Twitter heighten consumers' ability to discuss, compare, and recommend both websites and products – competing with search engine advertisements as well as amplifying the utility of other, traditional forms of advertisement.<sup>44</sup> Each of these forces effectively disciplines search engines towards relevant, useful results, as defined by those attractive to consumers in light of available substitutes. "General" search engines – such as Google and Yahoo! – also compete with "vertical" search engines, which focus on one or more specific types of content. Amazon provides vertical search services in books and media, Orbitz in travel services, and eBay in various consumer goods.<sup>45</sup>

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<sup>39</sup> *Ads*, GOOGLE GUIDE (last modified Aug. 24, 2008), <http://googleguide.com/ads.html>.

<sup>40</sup> Manne & Wright, *supra* note 29.

<sup>41</sup> Stephen Shankland, *Google's U.S. Search Share Nears 70 Percent*, CNET NEWS (July 15, 2008, 12:53 PM), [http://news.cnet.com/8301-1023\\_3-9991866-93.html](http://news.cnet.com/8301-1023_3-9991866-93.html).

<sup>42</sup> *The Google Algorithm*, N.Y. TIMES (July 14, 2010), <http://www.nytimes.com/2010/07/15/opinion/15thu3.html>.

<sup>43</sup> David Gelles, *Facebook's Grand Plan for the Future*, FINANCIAL TIMES (December 3, 2010, 5:24 PM), <http://www.ft.com/cms/s/2/57933bb8-fcd9-11df-ae2d-00144feab49a.html#axzz1H27SlrZM>.

<sup>44</sup> *Id.* Heather Leonard, *The Google Investor: Competition With Facebook Heats Up*, BUSINESS INSIDER (June 29, 2010, 1:07 PM), <http://www.businessinsider.com/the-google-investor-google-facebook-june-29-2010-6>.

<sup>45</sup> Press Release, Europa, Antitrust: Commission Probes Allegations of Antitrust Violations by Google, (November 30, 2010) (<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1624>); Randy Stutz, *An Examination of the Antitrust Issues Posed by Google's Acquisition of ITA*, AMERICAN ANTITRUST INST., February 18, 2011.

In addition to online competition, evidence suggests that search engines compete with other distribution mechanisms for advertisement revenue.<sup>46</sup> Pepsi provides a pointed example, declining to purchase a television advertisement in Super Bowl 2010 explicitly in favor of increasing its Internet presence.<sup>47</sup> Other broadcast and print advertisements also necessarily compete with search engines to reach end product consumers.<sup>48</sup> At least one study suggests that online and offline advertising sources respond to pricing changes and availability of their counterpart.<sup>49</sup> It is accordingly challenging to accurately delineate a given search engine's market share – a necessary pre-condition to determining market power and antitrust enforcement under Section 2 of the Sherman Act.<sup>50</sup>

Some search neutrality proponents cite the “network effects” of Google and other prominent search engines as either justifying or necessitating search neutrality.<sup>51</sup> A “network effect” exists when the value of a good or service increases correspondingly with additional use by other users; Facebook, for example, provides positive network effects through increased use as each additional user is able to access a greater variety of individuals at no cost to the consumer.<sup>52</sup> These network effects typically prove pro-competitive, increasing service value consumers and businesses.<sup>53</sup> Critics theorize – albeit without empirical support – that a search engine's network effects may

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<sup>46</sup> See Robert W. Hahn & Hal J. Singer, *An Antitrust Analysis of Google's Proposed Acquisition of DoubleClick* 5, 24–32 (AEI/Brookings Joint Center for Regulatory Studies, Working Paper No. 07-24, 2008), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1016189](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1016189) (explaining that purchasers of online advertisements see search ads as substitutes for other forms of online advertising). See *KinderStart.com LLC v. Google, Inc.*, No. C06□2057JF(RS), 2007 WL831806 at \*6 (N.D. Cal. Mar. 16, 2007) (noting that “there is no logical basis for distinguishing the Search Ad Market from the larger market for Internet advertising”).

<sup>47</sup> Larry D. Woodard, *Pepsi's Big Gamble: Ditching Super Bowl for Social Media*, ABC NEWS, Dec. 23, 2009, <http://abcnews.go.com/print?id=9402514>.

<sup>48</sup> See FED. TRADE COMM'N, Statement Concerning Google/DoubleClick, FTC File No. 071□0170, at 3 (Dec. 20, 2007), available at <http://www.ftc.gov/os/caselist/0710170/071220statement.pdf>.

<sup>49</sup> Avi Goldfarb & Catherine Tucker, *Search Engine Advertising: Pricing Ads to Context* 96 (NET Institute Working Paper No. 07□23, 2007), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1021451&rec=1&srcabs=10084](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1021451&rec=1&srcabs=10084)

<sup>50</sup> 15 U.S.C. § 2 (2006).

<sup>51</sup> Dissenting Statements of Commissioner Pamela Jones Harbour, In the matter of Google/DoubleClick F.T.C. File No. 071-0170, Dec. 20, 2007, 1. See also, Bracha & Pasquale, *supra* note 3, at 1181.

<sup>52</sup> KEN AULETTA, *GOOGLED: THE END OF THE WORLD AS WE KNOW IT* (2009).

<sup>53</sup> William D. Rahm, *Watching over the Web: A Substantive Equality Regime for Broadband Applications*, 24 YALE J. REG. 1, 16 (2007). J. Gregory Sidak, *A Consumer□Welfare Approach to Network Neutrality Regulation of the Internet*, 2 J. COMPETITIVE L. & ECON. 349, 454 (2006).

themselves present competitive concerns.<sup>54</sup> As network effects grow, they naturally increase the value and often decrease the marginal cost of providing the relevant service – for example, according to one search neutrality advocate, each search provides a given website a new opportunity to “perfect its algorithm” and thereby provide users with a better searching experience.<sup>55</sup> Critics imply (or state) that these effects increase a dominant search engine’s market power, rendering competition by start-up search engines difficult and entrenching established firms’ ability to manipulate search data for their own benefit.<sup>56</sup>

Yet the end consequence of network effects is far from economically clear. *Unlike* Facebook, search engine users do not gain from being able to participate in a network with more users. Advertisers, both in traditional as well as online media, often care about the type of individual reached by a new advertisement: an additional amount of traffic without additional sales may well be of *negative* value to a vendor under the click-through system.<sup>57</sup> Furthermore, advertisers and users act on fundamentally different incentives with regard to the growth of the search engine; advertisers care about the quality or type of individual clicking on the relevant advertisement, while search engine users care about the quality of results provided by the engine.<sup>58</sup> The search engine must manage these competing incentives through its differential pricing and application of search biases to retain both a user base and advertisement sales.<sup>59</sup> In

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<sup>54</sup> Kevin Werbach, *Only Connect*, 22 BERKELEY TECH. L.J. 1233, 1292 (2007) (“Nonetheless, it is possible for applications to become exclusive platforms with anticompetitive effects similar to those of exclusive physical broadband networks. Google’s dominant search engine and MySpace’s massive social networking site might be candidates for such scrutiny at some point in the future. Because these are network-centric applications, whatever ability they have to distort competition and innovation arises from their ability to capture network effects.”). Kristine Laudadio Devine, *Preserving Competition in Multi-Sided Innovative Markets: How Do You Solve a Problem Like Google?*, 10 N.C. J.L. & TECH. 59 (2008).

<sup>55</sup> Bracha & Pasquale, *supra* note 3, at 1181 (“The more searches an engine gets, the better able it is to sharpen and perfect its algorithm. The result is that each additional user decreases the cost of a better quality service for all users. Thus, incumbents with large numbers of users enjoy substantial advantages over smaller entrants.”)

<sup>56</sup> *Id.* See also, Werbach, *supra* note 54, at 1292.

<sup>57</sup> Manber, *supra* note 35; Manne & Wright, *supra* note 29.

<sup>58</sup> David S. Evans, *The Economics of the Online Advertising Industry*, 7 R. NETWORK ECON. 359 (2008).

<sup>59</sup> David S. Evans & Michael D. Noel, *Defining Markets That Involve Multi-Sided Platform Businesses: An Empirical Framework with an Application to Google’s Purchase of DoubleClick 4* (AEI/Brookings Joint Ctr. for Regulatory Studies, Working Paper 07-18, 2007), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1089073](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1089073).

this, a search engine operates as any other two-sided market platform, balancing asymmetrical incentives between consumers on both sides.<sup>60</sup>

### III. Does Search Bias Help or Harm Consumers?

The question remains whether a search engine's use of its search algorithm to direct traffic to itself harms competition and consumers.<sup>61</sup> The economics literature has extensively examined the competitive dynamics that arise when a business firm operates at two levels in the same chain of distribution – such as when Ralph Lauren both manufactures clothing and sells it through its own retail outlets. The economic merits of search neutrality ultimately reduce to a question of the costs and benefits of vertical integration.

The economics literature has explored these questions before: indeed, it is replete with examinations of the incentives of a vertically integrated firm to promote its own products or invest more heavily in the distribution of its own products or content.<sup>62</sup> The key question is whether such a bias benefits consumers or inflicts competitive harm. Economic theory has long understood the competitive benefits of such vertical integration; modern economic theory also teaches that, under some conditions, vertical integration and contractual arrangements can create a potential for competitive harm that must be weighed against those benefits. A thorough economic analysis requires the fact-intensive evaluation of these competing possibilities rather than a bright-line rule or ex ante prohibition on search bias which would deter some pro-competitive business conduct and harm consumers.

The *TradeComet* complaint adequately represents many of the concerns Google's competitors raise in U.S. courts and with U.S. or European competition agencies, as well as the broader concerns of advocates of search neutrality.<sup>63</sup> One variant of this complaint is that Google employs its quality score—which rivals complain it has kept secret—to preclude access by competitors to its top ad results, and to increase the

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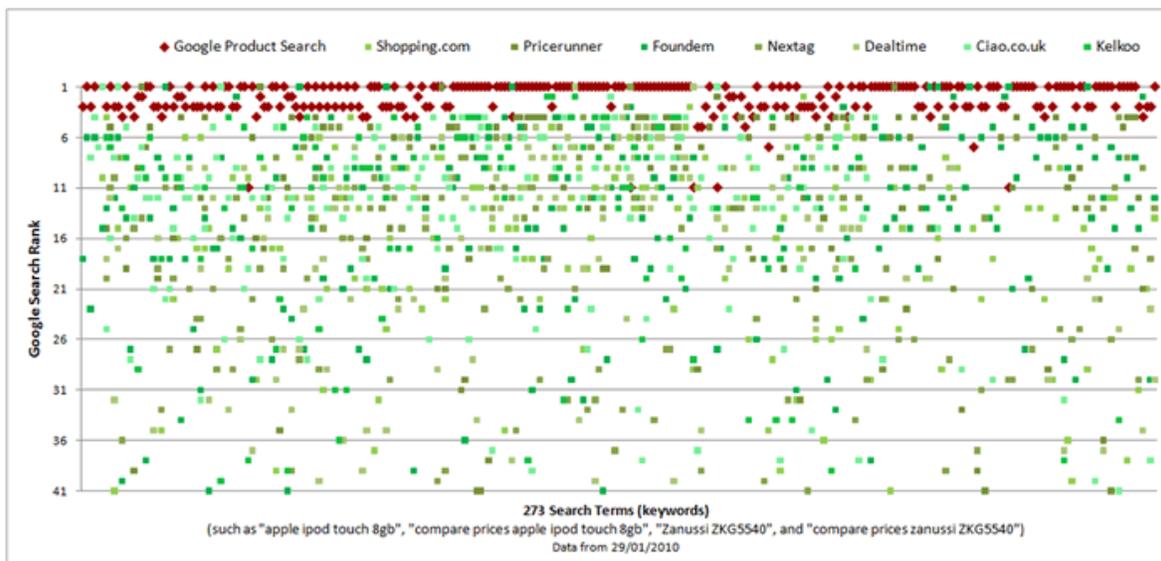
<sup>60</sup> James Grimmelmann, *How to Fix the Google Book Search Settlement*, 12 J. INTERNET L. 1, 14 (2009) (“Thus, Google’s first-past-the-post status here could easily turn into a durable monopoly. That might be the inevitable result anyway; this is a market with substantial economies of scale and positive network effects.”)

<sup>61</sup> We postpone discussion of whether search bias inflicts non-economic harm to Part IV.

<sup>62</sup> See, e.g., Paul Joskow, *Vertical Integration*, in HANDBOOK OF NEW INSTITUTIONAL ECONOMICS 319-48 (2005); Benjamin Klein & Kevin M. Murphy, *Vertical Restraints as Contract Enforcement Mechanisms*, 31 J.L. & ECON. 265 (1988); James C. Cooper et al., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT’L J. INDUS. ORG. 639 (2005).

<sup>63</sup> Complaint at para. 76, *TradeComet.com LLC v. Google, Inc.*, 693 F. Supp. 2d 370 (S.D.N.Y. 2010).

payments required of competitors for top placement.<sup>64</sup> Similar complaints arise in the context of organic search results.<sup>65</sup> In each case, the core of the economic case against search bias is that Google has the incentive to (and does in fact) discriminate in favor of its own products in allocating scarce and valuable search real estate, and thus necessarily discriminates against rivals. For example, Searchneutrality.org submitted the following descriptive analysis of Google’s search bias: for the 271 search keywords examined, Google’s own “Google Product Search” (the red dots in the graph) systematically receive high search placement.<sup>66</sup>



Edelman and Lockwood’s August 2010 analysis of search bias attracts some attention from search neutrality advocates to highlight this point.<sup>67</sup> Edelman and Lockwood formed a list of 32 search terms for services commonly provided by search engines (e.g. “email”, “calendar”, and “maps”) and executed searches using those terms on Google, Yahoo!, Bing, Ask and AOL. The study’s small sample size prohibits broad

<sup>64</sup> See Daniel Lyons, *They Might Be a Little Evil*, NEWSWEEK, June 1, 2009, at 24; Joe Nocera, *Stuck in Google’s Doghouse*, N.Y. TIMES, Sept. 13, 2008, at C1. We discuss the antitrust issues raised by the TradeComet complaint elsewhere, rejecting the claim that Google’s use of its quality scores (accepting the facts in the Complaint) would create an antitrust duty to deal under existing law. See also Manne & Wright, *supra* note 29.

<sup>65</sup> *Background to EU Formal Investigation*, SEARCHNEUTRALITY.ORG (Nov. 30, 2010) <http://www.searchneutrality.org/foundem-google-story/eu-launches-formal-investigation/>.

<sup>66</sup> *Id.*

<sup>67</sup> Edelman & Lockwood, *supra* note 15. Danny Sullivan has observed that the timing of the study is an issue for generalizing its results because at the time of the study, Yahoo! was providing its own results, but is now powered by Bing. See Danny Sullivan, *Study: Google “Favors” Itself Only 19% Of The Time*, SEARCH ENGINE LAND (Jan. 19, 2011, 5:22 PM), <http://searchengineland.com/survey-google-favors-itself-only-19-of-the-time-61675>.

generalizations. Nonetheless, we discuss it here because it helps to highlight some important economic distinctions between the concept of search engine bias and inferences of consumer harm. After conducting searches for each of these 32 terms across search engines, the authors examine whether these search engines are more likely to exhibit a bias in favor of their own affiliated pages and conclude that “both Yahoo and Google are much more likely to place their own pages first, relative to other search engines, and these differences are significant at the 1% level for Yahoo and the 2% level for Google.”<sup>68</sup>

The result that search engine bias is ubiquitous is not surprising. The fact that search engines such as Yahoo – that certainly do not have market power – exhibit similar bias suggests that the practice is not anticompetitive. Moreover, the incentive for a vertically integrated firm to discriminate in favor of its own products is also ubiquitous. Indeed, the more appropriate policy question is whether such bias ultimately benefits or harms consumers. Edelman and Lockwood do not locate their analysis within the industrial organization literature on this subject, but do consider whether search engine bias is “appropriate,” or a function of “user preferences.”<sup>69</sup> Here, Edelman and Lockwood make an attempt to distinguish “bias” from “user preference” by evaluating click-through data for selected terms. The authors report, unsurprisingly, that “across all search engines and search terms, the first result received, on average, 72% of users' clicks, while the second and third results received 13% and 8% of clicks, respectively.” Consumer behavior, the authors conclude, is consistent with the user preference hypothesis.<sup>70</sup> These results suggest vigorous competition between search engines to satisfy consumer preferences. A well-functioning competitive process ought to yield different search engines using different algorithms, exhibiting different inherent biases, and even attracting different sets of consumers – precisely what the marketplace exhibits.<sup>71</sup>

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<sup>68</sup> Edelman & Lockwood, *supra* note 15.

<sup>69</sup> *Id.*

<sup>70</sup> For example, Edelman and Lockwood report that Google and Yahoo “each list their own maps service as the first result for the query “maps”. Our CTR data indicates that Google Maps receives 86% of user clicks when the search is performed on Google, and Yahoo Maps receives 72% of clicks when the search is performed on Yahoo.”

<sup>71</sup> See, e.g., Danny Sullivan, *Dear Bing, We Have 10,000 Ranking Signals To Your 1,000. Love, Google*, SEARCH ENGINE LAND (Nov. 11, 2010, 1:20 PM), <http://searchengineland.com/bing-10000-ranking-signals-google-55473>.

Both these techniques and this result are unremarkable from an economic perspective. Supermarkets, bookstores, and other retail and distribution outlets facing downward sloping demand curves all exercise some discretion over how products are allocated on shelves, promoted, and featured. Just as it would not be surprising that Coca-Cola enjoyed greater sales with a retail outlet that had entered into a preferential contract with Coca-Cola for “eye-level” shelf space, neither is it a great surprise that consumers click-through content that is first on the search listing in greater numbers. Nothing in this pattern of consumer behavior is suggestive of a competitive failure.

Edelman and Lockwood provide one additional example that they describe as highly suggestive of bias that is not driven by consumer preferences. The authors identify ranking “inversions” where a more highly ranked result receives fewer clicks than lower ranked results. They use the example of “email,” where Gmail is the first result listed on Google and receives 29 percent of the users’ clicks while Yahoo mail (the second result) receives 54 percent.<sup>72</sup> But is evidence that lower ranked search engine listings sometimes outperform higher ranked listings for affiliated products or services suggestive of competitive harm? No – for several reasons. First, the fact that consumers who prefer the lower listed result (e.g., Yahoo mail which is listed second on Google) click to that service in large numbers suggests that consumers with strong preferences for Yahoo mail have those preferences satisfied even when it is listed second. Consumers with no preference or mild preferences between email listings (e.g. a consumer looking to open a new account) may well be influenced by the top-level listing. Yet the lack of preference similarly suggests zero or little welfare loss for that consumer.

Consider again the example of preferential “listings” on supermarket shelf space as between competing cola suppliers Coca-Cola and Pepsi. Assume that Coca-Cola signs a contract with a supermarket which guarantees it the “eye-level” shelf space on the soda shelf, which is well known to shift some additional sales to the products displayed in that space.<sup>73</sup> In these supermarkets, Coca-Cola is not sold exclusively.

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<sup>72</sup> Edelman & Lockwood, *supra* note 15. The authors report that other terms exhibit “a similar inversion for individual days in our data set, though “email” is the only term for which the difference is large and stable across the entire period.” They also find similar inversions on Yahoo; for example, Edelman and Lockwood observe that video.yahoo.com is the first search result on Yahoo, but receives just 21 percent of clicks whereas youtube.com receives 39 percent despite the fact that it is ranked second.

<sup>73</sup> See, e.g., Joshua D. Wright, *Slotting Contracts and Consumer Welfare*, 74 ANTITRUST L. J. 8 (2007).

Indeed, Pepsi products are sold on the less valuable shelf space below eye-level. A full economic analysis of the competitive effects of the shelf-space bias in favor of Coca-Cola would have to consider several factors. First, the shelf space contracts might better align incentives to promote the product, resulting in greater output and consumer gains.<sup>74</sup> Second, consumers with strong preferences for Coca-Cola are not harmed. Consumers with no strong brand preference may select the more highly ranked soda; indeed, this is one reason why soda companies are willing to pay for the shelf space and competition between these companies can create further consumer benefits.<sup>75</sup> But these consumers do not experience welfare losses. Consumers with strong preferences for the “discriminated against” brand (Pepsi, in this case) may be harmed if the preferential listing forecloses consumers from the opportunity to satisfy those preferences. However, Edelman and Lockwood’s analysis finds precisely the opposite: when Google or Yahoo exhibit bias in favor of their own listings, these “inversions” suggest that consumers with preferences for the non-featured brand are not foreclosed from satisfying those preferences. Indeed, expression of those preferences typically requires the consumer to simply click on the lower listed ranking.

The economics of vertical integration and its competitive effects are well known.<sup>76</sup> Indeed, the same economic issues arise even without vertical ownership of both content and distribution; in other words, firms will sometimes find it efficient to replicate the same business arrangements by contract rather than ownership.<sup>77</sup> Thus, as discussed above, we often observe retail intermediaries entering into preferential promotion or display contracts with product manufacturers. For example, supermarkets and other retail outlets receive payments for committing prime real estate to certain products, or often grant that space to their own private label products.<sup>78</sup>

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<sup>74</sup> Benjamin Klein & Joshua Wright, *The Economics of Slotting Contracts*, 50 J.L. & ECON. 421 (2007); Klein & Murphy, *supra* note 62; Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution*, 75 ANTITRUST L.J. 433 (2008).

<sup>75</sup> *Id.*

<sup>76</sup> AUGUSTIN COURNOT, RECHERCHES SUR LES PRINCIPES MATHÉMATIQUES DE LA THÉORIE DES RICHESSES (1838); Michael H. Riordan & Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach* 63 ANTITRUST L.J. 513 (1995); Michael A. Salinger, *Vertical Mergers and Market Foreclosure*, 103 Q.J. ECON. 345 (1988); Steven C. Salop & David T. Scheffman, *Cost-Raising Strategies*, 36 J. INDUS. ECON. 19 (1987).

<sup>77</sup> Ronald Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937); OLIVER E. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS (1975); Benjamin Klein, Robert G. Crawford & Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297 (1978).

<sup>78</sup> See Klein & Wright, *supra* note 74.

Retail bookstores also enter into similar contractual relationships with publishers. Unsurprisingly, the incentives faced by Google and other search engine firms are similar to those faced by other vertically-related firms in the new economy.

The commonality of these arrangements demonstrates that they are profitable, and tends to suggest they are generally efficient, but this alone does not show that search engine bias follows this general trend. Such an analysis depends in large part on the expected pro-competitive efficiencies from the particular arrangements at issue as well as the constraints on Google's incentives to anticompetitively foreclose rivals from access to its prime search real estate. We now turn to the general economic framework and its specific application to search engine bias.

## **A. The Competitive Effects of Search Bias**

### **1. Potential Competitive Benefits**

Vertical integration of a search engine and a producer in an ancillary market can have several competitive benefits. The most obvious potential competitive benefit of vertical integration is mitigating "double marginalization," thus leading to lower prices by avoiding paying an intermediary. Perhaps most important in the search engine context is that vertical integration might create incentives to innovate and create new products and mechanisms to efficiently deliver those products to consumers. Examples of this type of efficiency include Google Maps or Google Images, both of which combine Google's search function with a novel method of presenting desired information to consumers (e.g. a map or pictures). This type of integration is, in fact, a core part of Google's business model. As others have observed, Google has:

offered more than web search for a very long time. Image searches, for example, stretches back to 2001. It is a search company. It is supposed to offer search products. It makes no sense to expect those search products to be merely listing web pages. If people are doing shopping searches on Google, it should evolve its product to have a specialized shopping tool. That's what its users want. Sure, that might hurt other shopping sites out there. Or, it might not, if they offer a better shopping search than Google. But it's a ridiculous argument that Google should somehow send every shopping query out to another shopping search engine. Imagine if you did a web search for something, say "iPhone," and every link you got led to Bing, Yahoo and other search engines, which in turn showed their results for iPhone. That's crazy. You came to Google for answers, to be

lead directly to sites with those answers, not to be sent to another search engine and forced to search again.<sup>79</sup>

Where these competitive benefits exist, vertical integration and search bias might well cause harm to competing products as is often the case in the competitive process, but consumers would be made better off.

## 2. Potential Competitive Harms

Foreclosure is the fundamental competitive issue raised by vertical integration.<sup>80</sup> Google's search bias raises two theoretical foreclosure possibilities. The first theory is that Google's promotion of its own internal sites might prevent a producer of a rival product from access to an input critical to competing. Kayak.com and Expedia.com exemplify such concerns against Google; they claim that Google will manipulate its search result to favor its own potential travel products over theirs if permitted to close its proposed acquisition of travel information analysis provider ITA.<sup>81</sup> If Google's search engine is important enough to foreclose competition in these markets – in particular, if it has monopoly power – rivals could be left with only less efficient alternatives to reach consumers. The same logic can be applied to the complaints by vertical search engines, such as SourceTool, that Google discriminates against its search rivals in its paid advertising rankings. Of course, monopoly power is only a necessary but not sufficient condition to create incentives to behave anticompetitively; and even if found, any competitive harm would have to be weighed against the competitive benefits described above.

A number of market mechanisms constrain any attempt by Google or other search engines to harm competition through malign search bias, however. As discussed above, consumers' ready ability to satisfy revealed preferences through selecting less-preferred search links necessarily constrains search engine exclusionary practices. This constraint is most likely to be important when, as in the above examples, the

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<sup>79</sup> Danny Sullivan, *The New York Times Algorithm & Why It Needs Government Regulation*, SEARCH ENGINE LAND (Jul. 15, 2010, 2:07 PM), <http://searchengineland.com/regulating-the-new-york-times-46521>.

<sup>80</sup> Riordan & Salop, *supra* note 75.

<sup>81</sup> Margot Williams, *Expedia is worried about Google/ITA Deal*, INSIDEGOOGLE.COM (Jul. 12, 2010, 12:13 PM), <http://insidegoogle.com/2010/07/expedia-is-worried-about-googleita-deal/>. See also, Ashby Jones, *The Google/Antitrust Story Continues With Objections to ITA Purchase*, WALL ST. J., (Oct. 26, 2010, 9:05 AM), available at <http://blogs.wsj.com/law/2010/10/26/the-googleantitrust-story-continues-with-objections-to-ita-purchase/>.

consumers' preferred link is still ranked.<sup>82</sup> A number of other considerations mitigate a search engine's incentives to bias searches to harm competition rather than to compete in more effective ways that benefit consumers.

First, with respect to product search, Google does not sell retail goods, and does not profit directly from its own product search offerings (which compete with frequent complainant, Foundem), instead receiving benefit by increasing its customer base and the efficacy (presumably) of paid advertisements on its search pages that include a link to its own price comparison results. It is thus a tenuous claim, at best, that Google profits more by degrading its search results than by improving them.

Second, if the contrary claim is really true—that is, if Google harms itself or its advertisers by intentionally penalizing competing sites like Foundem—then any evidence of such harm is absent from the current debate. And, of course, if Google is actually improving its product by applying qualitative decisions to demote sites like Foundem and others that, Google claims, merely re-publish information from elsewhere on the web with precious little original content, then Google's efforts should be seen as a feature and not a bug.

A balanced view of the potential competitive benefits and harms from vertical integration suggests that while vertical integration is generally efficient and benefits consumers, it may also lead to competitive harm under some conditions. From a policy perspective, the issue is whether some sort of ex ante blanket prohibition or restriction on vertical integration is appropriate instead of an ex post, fact-intensive evaluation on a case-by-case basis, such as under antitrust law. The right answer will depend in part on how likely one believes that vertical integration will lead to competitive harm. Economic analysis can provide some useful answers here.

Vertical integration is ubiquitous in a modern economy. Economists generally agree that incumbent retailers solely benefit from legal restrictions on vertical integration, with consumer welfare losses typically resulting. Well known examples in the U.S. are state laws that mandate restraints on vertical integration by manufacturers that protect (among others) beer distributors, automobile dealers and gas station

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<sup>82</sup> Of course, this ameliorative effect could abate if a search engine de-listed a webpage altogether.

owners.<sup>83</sup> These restrictions on vertical integration have raised prices, and harmed consumers rather than providing them benefits.

Francine Lafontaine and Margaret Slade, in a recent and leading survey of the economic literature, present the following description of the state of evidence:

[O]verall a fairly clear empirical picture emerges. The data appear to be telling us that efficiency considerations overwhelm anticompetitive motives in most contexts. . . . It says that, under most circumstances, profit maximizing vertical-integration decisions are efficient, not just from the firms' but also from the consumers' points of view. Although there are isolated studies that contradict this claim, the vast majority support it. Moreover, even in industries that are highly concentrated so that horizontal considerations assume substantial importance, the net effect of vertical integration appears to be positive in many instances. We therefore conclude that, faced with a vertical arrangement, the burden of evidence should be placed on competition authorities to demonstrate that that arrangement is harmful before the practice is attacked. Furthermore, we have found clear evidence that restrictions on vertical integration that are imposed, often by local authorities, on owners of retail networks are usually detrimental to consumers. Given the weight of the evidence, it behooves government agencies to reconsider the validity of such restrictions.<sup>84</sup>

As a prophylactic regulatory measure against consumer harms caused by search engine bias, both economic theory and evidence suggest that a search neutrality rule – defined as an *a priori* restriction against search engine vertical integration or bias in favor of its own products – is not justified. Any individual instances of anticompetitive search engine bias are properly dealt with under antitrust laws. In the next section, we briefly sketch the appropriate antitrust framework for evaluating search engine bias.

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<sup>83</sup> See Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LIT. 629 (2007) (finding "clear evidence that restrictions on vertical integration that are imposed, often by local authorities, on owners of retail networks are usually detrimental to consumers"). See also Luke Froeb et al., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT'L J. INDUS. ORG. 639 (2005); Margaret E. Slade, *Beer and the Tie: Did Divestiture of Brewer-Owned Public Houses Lead to Higher Beer Prices?*, 108 ECON. JOURNAL 1 (1998); Michael G. Vita, *Regulatory Restrictions on Vertical Integration and Control: The Competitive Impact of Gasoline Divorcement Policies*, 18 J. REG. ECON. 217 (2000) (prohibitions on vertical integration in the gasoline industry increased prices); Asher A. Blass & Dennis W. Carlton, *The Choice of Organizational Form in Gasoline Retailing and the Cost of Laws that Limit that Choice*, 44 J. L. & ECON. 511, 512 (2001) (estimating that a hypothetical national divorcement law would cost consumers between \$.6 and \$2.1 billion). In the gasoline industry in particular, the Federal Trade Commission has advised state governments to abandon restrictions on vertical integration on precisely these grounds. See, e.g., Letter from Maureen K. Ohlhausen, Director, Office of Policy Planning, Michael A. Salinger, Director, Bureau of Economics, & Jeffrey Schmidt, Director, Bureau of Competition, to Councilmember Mary M. Cheh (June 8, 2007) (<http://www.ftc.gov/os/2007/06/V070011divorcement.pdf>) ("[R]epealing the Act's divorcement provision and allowing suppliers to operate retail gasoline stations likely would lead to lower operation costs for some stations, which would benefit consumers in the form of lower prices[.]").

<sup>84</sup> See also Joskow, *supra* note 62.

## B. Antitrust Framework for Evaluating Monopolization Claims Involving Search Engine Bias<sup>85</sup>

Section 2 of the Sherman Act forbids any person to “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations.”<sup>86</sup> It is well established that the offense of monopolization requires demonstration of both “(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.”<sup>87</sup> Courts and antitrust scholars struggle to assign administrable content to the language of Section 2.<sup>88</sup> This ambiguity spurs an ongoing scholarly debate over whether constructing a unified monopolization test to apply to all varieties of business conduct falling within the scope of the statute is possible or desirable.<sup>89</sup>

The key challenge facing any proposed analytical framework for evaluating monopolization claims is distinguishing pro-competitive from anticompetitive conduct. Antitrust errors are inevitable because much of what is potentially actionable conduct under the antitrust laws frequently actually benefits consumers, and generalist judges are called upon to identify anticompetitive conduct with imperfect information. As Judge Easterbrook has noted, the optimal antitrust rules minimize the costs of these errors by establishing and allocating appropriate burdens of proof.<sup>90</sup> Given the tendency in antitrust to condemn business practices that are not well understood, or for which an efficiency explanation cannot be proffered that fits into the categories established by earlier cases, it is key that any burden-shifting approach to monopolization retains the requirement that plaintiffs demonstrate that actual consumer harm has occurred.<sup>91</sup>

Despite the vigorous debate over the appropriate legal standards to apply in specific Section 2 cases, a sensible and common starting place for discussion of modern monopolization analysis is the D.C. Circuit's analysis in *Microsoft*. In the

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<sup>85</sup> This discussion is based, in part, upon our analysis in Manne & Wright, *supra* note 29.

<sup>86</sup> 15 U.S.C. § 2 (2006).

<sup>87</sup> *United States v. Grinnell Corp.*, 384 U.S. 563, 570–571 (1965).

<sup>88</sup> U.S. DEP'T OF JUSTICE, COMPETITION AND MONOPOLY: SINGLE FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT (2008), available at <http://www.usdoj.gov/atr/public/reports/236681.htm>.

<sup>89</sup> See, e.g., Thomas E. Kauper, *Section Two of the Sherman Act: The Search for Standards*, 93 GEO. L.J. 1623 (2005).

<sup>90</sup> See Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 14-15 (1984).

<sup>91</sup> See Benjamin Klein, *Exclusive Dealing as Competition “On the Merits”*, 12 GEO. MASON L. REV. 119 (2003).

monopolization context, the D.C. Circuit's *Microsoft* opinion sets forth the leading burden-shifting approach for distinguishing exclusionary from competitive acts.<sup>92</sup> The plaintiff's initial burden is described as follows:

[T]o be condemned as exclusionary, a monopolist's act must have an 'anticompetitive effect.' That is, it must harm the competitive *process* and thereby harm consumers . . . [And] the plaintiff, on whom the burden of proof of course rests, must demonstrate that the monopolist's conduct indeed has the requisite anticompetitive effect.<sup>93</sup>

Next, "[I]f a plaintiff successfully establishes a prima facie case under § 2 by demonstrating anticompetitive effect, then the monopolist may proffer a [nonpretextual] 'pro-competitive justification' for its conduct."<sup>94</sup> Finally, "[I]f the monopolist's pro-competitive justification stands un rebutted, then the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the pro-competitive benefit."<sup>95</sup>

The key economic function of the plaintiff's burden to demonstrate actual competitive harm at the onset of litigation is to minimize the social costs of antitrust enforcement, and, in particular, the costs associated with false positives. The D.C. Circuit noted the difficulty of this task:

Whether any particular act of a monopolist is exclusionary, rather than merely a form of vigorous competition, can be difficult to discern: the means of illicit exclusion, like the means of legitimate competition, are myriad. The challenge for an antitrust court lies in stating a general rule for distinguishing between exclusionary acts, which reduce social welfare, and competitive acts, which increase it.<sup>96</sup>

With this challenge in mind, courts have long struggled to develop administrable tests that, at a minimum, identify implausible claims. These screens, such as the "monopoly power" requirement, filter out non-meritorious claims where the complained-of conduct is incapable of harming the competitive process and where a finding of liability would be especially likely to chill pro-competitive business practices. Similarly, the requirement that plaintiffs satisfy their prima facie burden with evidence

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<sup>92</sup> *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam).

<sup>93</sup> *Id.* at 58–59.

<sup>94</sup> *Id.* at 59.

<sup>95</sup> *Id.*

<sup>96</sup> *Id.* at 58.

of anticompetitive effect serves the purposes of reducing the administrative costs of litigating nonmeritorious claims and minimizing the social costs of errors.

With the general monopolization landscape and first principles in hand to provide the lens for any specific application of Section 2 law, we turn to a more detailed discussion of the two key elements of a potential monopolization case (monopoly power and exclusionary conduct) and their application to Google and search bias.

### **1. Monopoly Power**

Monopoly power is the first element of the monopolization offense and refers to the “power to control prices or exclude competition.”<sup>97</sup> As an antitrust concept, monopoly power must be distinguished from the type of economic market power that refers merely to the ability to have some discretion over one’s own price without losing all sales. Although market power in this sense is ubiquitous in the modern economy, monopoly power of the type required to establish a Section 2 violation implies the power to control either market prices or output. Further, this power must be durable rather than transitory.

Applied to a monopolization case against Google, a monopoly power inquiry raises several complex issues. The most important of these is that the market definition inquiry plays a central role in disciplining any monopoly power analysis. Thus, in assessing a claim of a Section 2 violation, careful consideration of the potentially relevant markets in which anticompetitive conduct might have occurred is necessary.

With respect to a monopolization claim involving Google’s search engine bias, the relevant allegation involves Google’s possession of durable monopoly power in the “search engine market.” Conventionally, those arguing that Google possesses such power point to aggregate data indicating that Google has a large share in such a market. Like all antitrust questions involving market definition, defining the relevant market in which Google competes is a potentially thorny issue. Most casual discussions of Google’s market share reference its share of the *search* market. Although the size of Google’s search market is relevant to assessing its significance in the search advertising market, the two are not the same. Thus, claims that “Google has 70% of the U.S. search

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<sup>97</sup> United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956).

market” may be true,<sup>98</sup> but are not clearly dispositive of the question of whether Google has monopoly power in the advertising market, where this figure is merely a measure of the number of searches performed on the major general search engines by end users in the United States. Inferring monopoly power from such aggregate shares is not uncommon in antitrust analysis, and Google’s claimed market shares are certainly not out of line with the shares that have given rise to these presumptions.<sup>99</sup> For the sake of illustrating the relevant antitrust framework, we will assume Google has monopoly power for the remainder of our analysis.

## 2. Does Antitrust Impose Upon Google A Duty to Deal to “Undo” Search Bias in Ad Results?

On its advertising platform Google is alleged to employ its quality score—which rivals complain it has kept secret—to preclude access by competitors to its top ad results, and to increase the payments required of competitors for top placement.<sup>100</sup> In an effort to match the facts of *Aspen Skiing*, moreover, the *TradeComet* complaint alleges that Google withdrew from a voluntary, profitable venture through manipulation of its quality scores.<sup>101</sup> Do the antitrust laws impose upon Google a duty to deal with its rivals by making concessions in either ad rankings, search rankings or otherwise?

The antitrust laws only rarely impose a duty to deal on business firms.<sup>102</sup> In *Trinko*, the Supreme Court reaffirmed that as a general matter, the antitrust laws do not

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<sup>98</sup> Stephen Shankland, *Google’s U.S. Search Share Nears 70 Percent*, CNET NEWS (July 15, 2008, 12:53 PM), [http://news.cnet.com/8301-1023\\_3-9991866-93.html](http://news.cnet.com/8301-1023_3-9991866-93.html). See also, Edelman & Lockwood, *supra* note 15; *Search Engine Market Share*, NETMARKETSHARE.COM (Feb. 2011), <http://www.netmarketshare.com/search-engine-market-share.aspx?qprid=4>; *Google’s Market Share in Your Country*, GOOGLE OPERATING SYSTEM (last modified March 13, 2009), <http://googlesystem.blogspot.com/2009/03/googles-market-share-in-your-country.html>.

<sup>99</sup> See, e.g., *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 481 (1992) (finding eighty to ninety-five percent predominant); *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966) (finding eighty-seven percent predominant); *United States v. E.I. du Pont Numours & Co.*, 351 U.S. 377, 379 (1956) (finding seventy-five percent predominant); *American Tobacco Co. v. United States.*, 328 U.S. 781 (1946) (finding over sixty-six percent predominant); *United States v. Dentsply Int’l Inc.*, 399 F.3d 181, 188 (3d Cir. 2005) (finding seventy-five to eighty percent predominant).

<sup>100</sup> See Daniel Lyons, *They Might Be a Little Evil*, NEWSWEEK, June 1, 2009, at 24; Joe Nocera, *Stuck in Google’s Doghouse*, N.Y. TIMES, Sept. 13, 2008, at C1.

<sup>101</sup> *Compare* Complaint at para. 8, *TradeComet.com LLC v. Google, Inc.*, 693 F. Supp. 2d 370 (S.D.N.Y. 2010), with *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 601 (1985).

<sup>102</sup> See, e.g., *United States v. Colgate & Co.*, 250 U.S. 300, 307 (1919) (noting that antitrust laws typically do not “restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal”). The right to refuse to deal with rivals is not absolute, however, but it is close. See also *Aspen Skiing*, 472 U.S. at 601 (“[T]he high value . . . placed on the right to refuse to deal with other firms does not mean that the right is unqualified.”). See generally *Verizon Comm. Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004).

impose a duty to deal with rivals.<sup>103</sup> However, the Supreme Court also identified narrow conditions “at the boundary” of Section 2 law under which antitrust law will impose such a duty.<sup>104</sup>

In *Aspen Skiing*, the Supreme Court held that a ski area operator violated the antitrust laws by refusing to continue a joint-ticket venture with a neighboring operator.<sup>105</sup> Under the agreement, the parties issued joint, multiday lift tickets that could be used at each of the areas ski facilities. In finding that there was sufficient evidence to support antitrust liability, the Court focused on the offending operator’s willingness to terminate a voluntary and profitable business relationship.<sup>106</sup> The Court observed that the offending operator persisted in terminating the joint-ticket venture even after the competitor offered to pay full retail price for the tickets in order to continue the arrangement. Relying on these facts, the Court concluded that such conduct suggested that the offending ski operator was willing to forgo short-term profits for future monopoly prices. As a result, the court determined that the refusal to deal was anticompetitive conduct aimed at preserving a monopoly.

The Supreme Court’s latest word on the duty to deal limits the duty to an extremely narrow set of circumstances:

Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities. Enforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited. Moreover, compelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion. Thus, as a general matter, the Sherman Act “does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal.”<sup>107</sup>

The Court warned that the imposition of a duty to deal would threaten to “lessen the incentive for the monopolist, the rival, or both to invest in . . . economically beneficial

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<sup>103</sup> *Trinko*, 540 U.S. at 408.

<sup>104</sup> *Id.* at 409.

<sup>105</sup> *Aspen Skiing*, 472 U.S. at 608.

<sup>106</sup> *Id.* at 610–11.

<sup>107</sup> *Trinko*, 540 U.S. at 407–08 (citing *Colgate*, 250 U.S. at 307).

facilities.”<sup>108</sup> Commentators have heavily criticized “refusal to deal” jurisprudence,<sup>109</sup> not least because the principles offer business firms little in the way of advance knowledge regarding whether business decisions violate the antitrust laws. Because imposition of a duty to deal with rivals threatens to decrease the incentive to innovate by creating new ways of producing goods at lower costs, satisfying consumer demand, or creating new markets altogether, courts and antitrust agencies have been reluctant to expand the duty.

Despite this reluctance, the *TradeComet* complaint contends that Google’s decision to implement a quality metric to effectively terminate earlier dealings with competitors more closely resembles the circumstances presented in *Aspen Skiing* than those in *Trinko*, and thus purports to present the rare circumstance warranting imposition of a duty to deal under Section 2. The key allegation is that Google manipulates the quality score generated by its quality score methodology, allowing Google to adjust where among the sponsored links AdWords will place an advertisement and what amount must be bid to secure a top placement. According to TradeComet, this allows Google arbitrarily to charge advertisers higher prices for the same placement irrespective of the advertiser’s keyword auction bids. The complaint contemplates that in extreme cases, Google could charge arbitrarily high prices sufficient to result in a de facto refusal to deal with rivals.<sup>110</sup> TradeComet alleges that Google employed this type of strategy once its vertical search engine rival, SourceTool, started to enjoy success in the search advertising market.<sup>111</sup>

Google’s use of its own quality scores does not, however, create an antitrust duty to deal. TradeComet precariously justifies its claim by alleging that Google and TradeComet once entered into a voluntary and profitable deal. TradeComet alleges that changes to the terms of that deal, such as an increase in the price charged, imply the type of short-term sacrifice of profits at work in *Aspen Skiing*. We are not persuaded.

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<sup>108</sup> *Id.*

<sup>109</sup> See, e.g., Ronald A. Cass & Keith N. Hylton, *Preserving Competition: Economic Analysis, Legal Standards and Microsoft*, 8 GEO. MASON L. REV. 1, 27 (1999); Frank H. Easterbrook, *On Identifying Exclusionary Conduct*, 61 NOTRE DAME L. REV. 972, 973 (1986).

<sup>110</sup> Complaint at para. 78, *TradeComet.com LLC v. Google, Inc.*, 693 F. Supp. 2d 370 (S.D.N.Y. 2010).

<sup>111</sup> We have analyzed this claim of Google’s search engine as a so-called “essential facility” elsewhere. See Geoffrey A. Manne, *The Problem of Search Engines as Essential Facilities: An Economic and Legal Assessment in THE NEXT DIGITAL DECADE* 419-434 (2010). It is also worth noting that the Supreme Court has refused to endorse such a claim, see *Trinko*, 540 U.S. at 410, and because of this there is near universal agreement from commentators that it should be abandoned. See, e.g., 3A PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW*, ¶ 771c, at 196 (3d ed. 2008) (noting that “the essential facility doctrine is both harmful and unnecessary and should be abandoned”); Michael Boudin, *Antitrust Doctrine and the Sway of Metaphor*, 75 GEO. L.J. 395, 402 (1986) (noting the “embarrassing weakness” of the essential facilities doctrine).

The reasons for rejecting antitrust-based duties to deal cited by the Court in *Trinko* and advanced by leading commentators all militate in favor of rejecting such an allegation.<sup>112</sup>

The most critical of these reasons in the search engine bias context is that, as discussed above, the likelihood of competitive harm is low relative to the likelihood of consumer benefits. Nearly as important is that imposing a duty to deal is not likely to improve matters because of the difficulties of crafting and enforcing a remedy. As the Court noted in *Trinko*, “enforced sharing . . . requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited.”<sup>113</sup> The Antitrust Modernization Commission recently reached a similar conclusion,<sup>114</sup> joining the growing consensus of commentators, such as Judge Posner, who have concluded that “it cannot be sound antitrust law that, when Congress refuses or omits to regulate some aspect of a natural monopolist’s behavior, the antitrust court will step in and, by decree, supply the missing regulatory regime.”<sup>115</sup>

It should also be noted that the attempt to extend the duty to deal to Google’s quality score metric is unprecedented in the sense that it is an attempt to use the antitrust laws to mandate access for rivals to an innovative and effective algorithm for efficient pricing. That the device is used by every general purpose search engine for the same purpose further suggests that its function is pro-competitive. Complaints about the secrecy of the algorithm are a red herring from an antitrust perspective. No business firm, even a monopolist, has an antitrust duty to reveal to competitors formulas that it uses to set prices. Further, there is an obvious pro-competitive justification for keeping the quality score metric secret: Google’s success in matching keywords to ads will be compromised by disclosure of the algorithm because it would open opportunities to game the auction process. United States antitrust law not only does not condemn Google’s ability to charge efficient prices for its services through the auction, it encourages it.

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<sup>112</sup> We discuss this point in greater detail in Manne & Wright, *supra* note 29.

<sup>113</sup> *Trinko*, 540 U.S. at 408.

<sup>114</sup> ANTITRUST MODERNIZATION COMM’N, REPORT AND RECOMMENDATION 102 (2007), available at [http://govinfo.library.unt.edu/amc/report\\_recommendation/amc\\_final\\_report.pdf](http://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf) (“[F]orced sharing requires courts to determine the price at which such sharing must take place, thereby transforming antitrust courts into price regulators, a role for which they are ill suited.”).

<sup>115</sup> RICHARD A. POSNER, ANTITRUST LAW 243-44 (2nd ed. 2001).

### C. Unintended Consequences of Regulating Search Bias in Organic Results

While *a priori* regulation of search bias on consumer welfare grounds cannot be justified by either economic theory or evidence, search neutrality remedies can impose further costs on consumers above and beyond depriving consumers of the consumer benefits associated with bias. The most important of these unintended consequences of search neutrality is that by making search engine results uniform, competitors would no longer have an incentive to differentiate themselves from one another upon margins that consumers value. As discussed above, evidence suggests that not only Google, but its rivals, as well, find it efficient to promote and make prominent certain types of information for its users. Like competition in most industries, Google and, for example, Yahoo, differ in precisely how they differentiate themselves. That differentiation is a form of competition. Search neutrality, in its attempt to achieve greater uniformity across search engines, reduces the incentive to engage in that form of competition. As one Google executive has observed:

But the strongest arguments against rules for “neutral search” is that they would make the ranking of results on each search engine similar, creating a strong disincentive for each company to find new, innovative ways to seek out the best answers on an increasingly complex web. What if a better answer for your search, say, on the World Cup or “jaguar” were to appear on the web tomorrow? Also, what if a new technology were to be developed as powerful as PageRank that transforms the way search engines work? Neutrality forcing standardized results removes the potential for innovation and turns search into a commodity.<sup>116</sup>

Meanwhile, it is difficult to see how relevance (and thus efficiency) could be well-served by a neutrality principle that requires a tool that *reduces* search costs to inherently *increase* those costs by directing searchers to a duplicate search on another site. If one is searching for a specific product and hoping to find price comparisons on Google, why would that person not want to find Google's own efforts at price comparison, built right into its search engine, but instead a link to another site that requires another several steps before finding the information?<sup>117</sup>

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<sup>116</sup> Marissa Mayer, *Do Not Neutralise the Web's Endless Search*, FINANCIAL TIMES (July 14, 2010), <http://googlepublicpolicy.blogspot.com/2010/07/our-op-ed-regulating-what-is-best-in.html>.

<sup>117</sup> Seen this way, Google's decision to promote its own price comparison results is a simple product pricing and design decision, protected by good sense and the *Trinko* decision (at least in the U.S.).

And the same analysis holds for assessments of Google’s other offerings (maps and videos, for example) that compete with other sites. Look for the nearest McDonalds in Google and a Google Map is bound to top the list. But why should it be any other way? In effect, what Google does is to give users search results in as accessible and appropriate a form as it can—design decisions that, Google must believe, increase quality and reduce effective price for its users. By offering not only a link to McDonalds’ web site, as well as various other links, but also a map showing the locations of the nearest restaurants, Google is offering up results in different forms, hoping that one is what the user is looking for. There is no economic justification for requiring a search engine in this setting to offer another site’s rather than its own simply because there happen to be other sites that do, indeed, offer such content (and would like cheaper access to consumers).

Of course, proponents of search neutrality have anticipated that neither theory nor evidence support the proposition that such regulation would make consumers better off on margins measured by consumer welfare: price, quantity, quality, or innovation; as such, they’ve turned to arguments that search neutrality might provide other social or cultural benefits. We turn to those claims in Section IV.

#### **IV. The Myth of Search Neutrality’s Non-Economic Virtues**

In addition to economic concerns surrounding Internet search behavior, some commentators have voiced unease about certain presumed non-economic consequences of search engine bias. These commentators have called for “scholars and activists to move beyond the crabbed vocabulary of competition law to develop a richer normative critique of search engine dominance.”<sup>118</sup> The limits of the economic approach embodied in competition law may prove less constraining than these critics realize. After all, modern antitrust analysis focuses on consumer welfare, which in turn encompasses price, output, quality, and innovation. While search bias regulation may seek to promote values other than consumer welfare through search neutrality or otherwise, the costs to consumers outlined in Part III suggest any regulatory regime must at a minimum demonstrate that the non-economic benefits gained exceed these tangible consumer losses.<sup>119</sup>

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<sup>118</sup> Pasquale, *supra* note 8, at 402.

<sup>119</sup> See, e.g., Christopher Yoo, *Beyond Network Neutrality*, 19 HARV. J. L. & TECH. 1, 54 (2005) (“There is nothing incoherent about imposing regulation to promote values other than economic welfare. . . . [but]

The move by search neutrality advocates from economic analysis to a non-economic critique of search bias is rooted primarily in amorphous “democracy” concerns:

Though rarely thought of as a “mass medium,” search engines occupy a critical junction in our networked society. Their influence on our culture, economy, and politics may eventually dwarf that of broadcast networks, radio stations and newspapers. Located at bottlenecks of the information infrastructure, search engines exercise extraordinary control over data flow in a largely decentralized network. Power, as always, is accompanied by opportunities for abuse, along with concerns over its limitation to legitimate and appropriate uses.<sup>120</sup>

Pasquale sets out the fundamental, underlying issue when he writes:

Dominant search engines and carriers are the critical infrastructure for contemporary culture and politics. As these dominant intermediaries have gained more information about their users, they have shrouded their own business practices in secrecy. Internet policy needs to address the resulting asymmetry of knowledge and power.<sup>121</sup>

The key elements of the non-economic argument against search engines are: (1) information asymmetry, an amorphous threat to culture and politics (sometimes rendered as “democracy”); (2) the absence of transparency; and (3) the need for some intervention, typically labeled a “policy,” to correct these abuses. As another commentator concludes, “[c]learly, we should not trust Google to be the custodian of our most precious cultural and scientific resources.”<sup>122</sup>

The fundamental problem with these non-economic claims, as well as with the larger class of techno-skepticism to which they belong, is that the arguments do not adequately distinguish between problems of private and of government control over these scarce resources. It is one thing to identify some possible problems with the status quo; it is another thing to prove that any particular solution—or even any solution at all—is preferable to those problems. In the case of the regulation of search engines, the arguments that Google is imperfect are not matched with arguments that government solutions to resolve these imperfections are any better.

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such a theory must provide a basis for quantifying the noneconomic benefits and for determining when those benefits justify the economic costs.”).

<sup>120</sup> Bracha & Pasquale, *supra* note 3, at 1150-51. See also Pasquale, *supra* note 8.

<sup>121</sup> Frank Pasquale, *Dilemmas of Domination: Google Faces the Search Neutrality Movement*, BALKINIZATION (Dec. 28, 2009), <http://balkin.blogspot.com/2009/12/dilemmas-of-domination-google-faces.html>.

<sup>122</sup> SIVA VAIDHYANATHAN, *THE GOOGLIZATION OF EVERYTHING* 202 (2011).

Thus, as others have noted, at some level the concept of neutrality in search is ridiculous. Search engines are by definition discriminatory—and valuably so:

Of course Google differentiates among sites—that’s why we use it. Systematically favoring certain types of content over others isn’t a defect for a search engine—it’s the *point* . . . . A search engine cannot possibly treat all websites equally, not without turning into the phone book.<sup>123</sup>

And there is going to be information asymmetry, even with maximum transparency, for the simple reason that search is a technological process. Even if given unfettered access to Google’s most essential trade secrets, almost all of us could no more understand the implications of its specific terms than we could understand the workings of a human brain by staring at it.

This inevitability reveals a critical aspect of calls for search neutrality on these non-economic grounds. The real leveling suggested by these commentators is not a leveling of information between *firms* and their *consumers*; rather the leveling is between firms and *governments*, who might possess and deploy the requisite engineering knowledge to ferret out some meaning from the search engine’s mathematical formulae. But this reshuffling of deck chairs does not necessarily effect a reallocation of information or power between consumers and sellers unless consumers are perfectly represented by the government.

Experience and common sense suggest this is not the case—and the necessity of discrimination built into the search engine’s essence means that such a reshuffling only shuttles control of the specifics of this discrimination to a different, imperfect decider. But governments have repeatedly proven themselves far greater threats to the very core non-economic concerns to which they are presumed to be the solution. No private entity in the world possesses power through the legitimate use of force matched by its government, and, as a result, no private entity equally threatens culture, freedom, and the like. While democratic governments rarely intend to violate these ideals, they wield immense power and are susceptible to influence from rent-seeking entities interested in co-opting that power to their own ends. Thus, even while claiming the government as the essential bulwark against the depredations of Google’s presumed power, these commentators readily and ironically identify the government as complicit in Google’s

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<sup>123</sup> Grimmelman, *supra* note 3, at 442-43.

abuse of power: “Through its remarkable cultural power, Google has managed to keep much regulatory action at bay around the world. In fact, Google seems poised to try to mold regulations in its favor in several important areas.”<sup>124</sup> It is unclear why the same government that facilitates the current set of claimed abuses will be effective in mitigating future instances of abuse.

One of the most significant ironies of this position is that it effectively champions the interests of one specific corporation (Microsoft) against another (Google), rather than upholding abstract principles of democracy against an imagined capitalist threat more generally. This fact is central to understanding the consequences of imposing a regulatory solution on the claimed problems of Google’s role in search:

Given the long history in antitrust of abuse of the private action to impose costs on rivals engaging in efficient business practices — a piece of history that is central to any narrative of the history of modern antitrust — and the longstanding concern about this idea in the economics literature, the argument that identity of the plaintiff or interloper is irrelevant to the economic merits of the underlying claim in the Microsoft-Google context seems especially wrongheaded.<sup>125</sup>

It is hard to imagine that our precious cultural resources are better protected by furthering Microsoft’s interests in harming Google rather than Google’s interest in avoiding its rival’s efforts to harm it. Similarly, prioritizing the interests of those websites that claim to be harmed by Google’s manipulation of its search engine in the name of abstract principle is likely to lead to undesirable consequences:

Giving websites search-neutrality rights gives them a powerful weapon in their wars with each other—one that need not be wielded with users’ interests in mind. Search neutrality will be born with one foot already in the grave of regulatory capture.<sup>126</sup>

As we have noted, the claims about the cultural implications of search discrimination are modeled on similar claims about network discrimination in the network neutrality debate.<sup>127</sup> At root the concern is that, absent leveling legislation

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<sup>124</sup> VAIDHYANATHAN, *supra* note 122, at 48.

<sup>125</sup> Joshua Wright, *The Microsoft-Google Antitrust Wars and Public Choice: There Is Too an Argument Against Rival Involvement in Antitrust Enforcement*, TRUTH ON THE MARKET (Sept. 14, 2010), <http://truthonthemarket.com/2010/09/14/the-microsoft-google-antitrust-wars-and-public-choice-there-is-too-an-argument-against-rival-involvement-in-antitrust-enforcement/>.

<sup>126</sup> Grimmelmann, *supra* note 3, at 318.

<sup>127</sup> See generally the commentaries at [www.savetheinternet.com](http://www.savetheinternet.com). See also, e.g., Jerry Kang, *Race.Net Neutrality*, 6 J. ON TELECOMM. & HIGH TECH. L. 1 (2007); Marvin Ammori, *Net Neutrality and the 21st Century First Amendment*, BALKINIZATION (Dec. 10, 2009), <http://balkin.blogspot.com/2009/12/net->

and/or regulation, avaricious corporations with the means to allocate scarce resources for profit will do so—to the detriment of the citizenry’s “neutral” and unfettered access to the culture-defining information on the Internet. But as in the case of network neutrality, there is simply no evidence that this pernicious outcome has been realized. Even where there are claims that Google has intentionally harmed its competitors through specific manipulation of its search results, there is no evidence that this manipulation, even if it were happening, implies the catastrophic threat to democracy that proponents of that view claim.

Others claim that even without resorting to specific manipulation, Google presents a danger to our culture and politics simply by virtue of its fundamental profit-making goal:

The imperatives of a company that relies on fostering Web use and encouraging Web commerce for its revenue may understandably morph into a system that privileges consumption over exploration, shopping over learning, and distracting over disturbing. That, if nothing else, is a reason to worry.<sup>128</sup>

For this author, these concerns lead to a “call for more explicitly public governance of the Internet.”<sup>129</sup> This argument remains one-sided. More broadly, this sort of argument presupposes a set of values that the author purports “should” be fostered by the Internet and, by extension, by Google. The attempt to codify these values into law merely represents the preferencing of one set of outcomes over another by fiat. Ironically, Google’s profit motive is itself an important protector of the aggregate preferences of its users and, even if Google’s incentives at the margin sometimes run against those preferences, this conflict is at least tempered by the general importance to Google and its advertisers of maintaining the attention of its users. Once governance decisions are outsourced, any responsiveness to users’ preferences is only more attenuated, and it is hard to see how that promotes rather than threatens democratic values.

Finally, it is difficult to see how the *actual* complained-of abuses—those raised in the various litigations and regulatory investigations against Google—can result in the

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neutrality-and-21st-century-first.html; Mathew Ingram, *Google Fights Growing Battle Over Search Neutrality*, GIGAOM (Dec. 17, 2010, 8:30 AM), <http://gigaom.com/2010/12/17/google-antitrust-search-neutrality/>.

<sup>128</sup> VAIDHYANATHAN, *supra* note 122, at 12.

<sup>129</sup> *Id.* at 11.

consequences claimed by these breathless commentators. What is the threat to democracy if Foundem shows up tenth instead of third in the search results for the query “Nikon camera?” How does the demise of MapQuest and the concomitant elevation of Google Maps portend the end of our culture as we know it? And in what way is the sanctity of information protected if a court substitutes Kinderstart.com’s view of its rightful place in Google’s search results for Google’s own? These purported non-economic threats to our welfare from Google’s activities seem dramatically overstated even on their own terms.

## **V. Conclusion**

Search bias is not a function of Google’s large share of overall searches. Rather, it is a feature of competition in the search engine market, as evidenced by the fact that its rivals also exercise editorial and algorithmic control over what information is provided to consumers and in what manner. Consumers rightly value competition between search engine providers on this margin; this fact alone suggests caution in regulating search bias at all, much less with an ex ante regulatory schema which defines the margins upon which search providers can compete. The strength of economic theory and evidence demonstrating that regulatory restrictions on vertical integration are costly to consumers, impede innovation, and discourage experimentation in a dynamic marketplace support the conclusion that neither regulation of search bias nor antitrust intervention can be justified on economic terms. Search neutrality advocates touting the non-economic virtues of their proposed regime should bear the burden of demonstrating that they exist beyond the Nirvana Fallacy of comparing an imperfect private actor to a perfect government decision-maker, and further, that any such benefits outweigh the economic costs described above.