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"SEARCH NEUTRALITY" AND OTHER PROPOSALS IN THE GOOGLE INQUIRY

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Google is currently the subject of high-profile antitrust scrutiny by the Federal Trade Commission (FTC), the European Commission (EU), and other regulators. At the heart of this scrutiny is Google's competitors' claim of "search bias"—that Google manipulates Google Search results to penalize competitors or to privilege other Google products and features. In light of these antitrust inquiries, Google's competitors have publicly proposed more than a dozen remedies for agencies to pursue.

This article evaluates these proposed remedies, with a focus on the FTC's investigation in the United States. The remedies can be evaluated now because Google's complaining competitors have had considerable opportunity to provide details of workable remedies. Microsoft, Expedia, Foundem, and a host of other companies have formed coalitions devoted to pursuing an antitrust investigation, called FairSearch in the United States and Initiative for a Competitive Online Marketplace (ICOMP) in Europe.[1] These coalitions have issued several white papers, sections of which propose a large number of remedies.[2] Their consultants have also elaborated on these remedies and proposed others.[3] The executives of Google's complaining competitors testified at a

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US Senate hearing on Google and antitrust, in September of 2011, with the opportunity to propose remedies.[4] It can be assumed that these competitors and their consultants have already put forward their most persuasive remedies, rather than putting forth their least persuasive proposals. Almost all of the proposed remedies target search bias. As this article demonstrates, even the competitors' strongest proposed remedies are entirely unpersuasive. At the Senate hearing, senators suggested that Google's competitors had not proposed a compelling, workable remedy, as they repeatedly asked witnesses for Google what they "would propose for a remedy if an antitrust court ruled against it."[5]

This article concludes that the cures proposed by the competitors are worse than Google's alleged disease. The proposed remedies might benefit the short-term economic interests of Google's competitors that are members of FairSearch and ICOMP, but benefiting competitors is not the goal of antitrust law. The goal of antitrust law is to promote consumer welfare, competition, and innovation. The proposed remedies, however, would do the opposite: harm consumers, impede competition, and stifle innovation. The remedies would invite government agencies and technical committees to second-guess and evaluate both mundane and game-changing engineering and user-interface decisions regarding Google Search, reverse long-standing fair use principles rooted in constitutional requirements, and empower competitors to litigate rather than compete against daily innovations and disclosures by Google.

Although the antitrust inquiries are ongoing, the FTC should evaluate the competitors' proposed remedies now for at least three reasons. First, if the dozen strongest proposed remedies would, on balance, harm consumer welfare, competition, and innovation, then the FTC would find no point in pursuing an investigation at all.[6] Second, the lack of workable remedies may be a powerful indicator of a weak antitrust claim on its merits, as even Thomas Barnett, the former US Department of Justice (DOJ) Antitrust Division chief who now represents FairSearch, has noted.[7] Third, when competitors in the FairSearch coalition such as Microsoft seek a government investigation without proffering a practical remedy, the intention appears rooted not in redressing a legal wrong, but merely in raising a rival's costs through the legal system. Forcing Google's executives to spend valuable time not on out-innovating competitors but instead on responding to antitrust investigations merely raises Google's costs of innovation.[8]

To evaluate the many proposed remedies, they can be classified into five categories:

1. **Search "Neutrality":** inviting government to second-guess and reject algorithmic and manual changes to Google Search based on an elusive, ill-defined "neutrality" concept that neither agencies nor technical committees could effectively adjudicate.
2. **Ten Blue Links, not Universal Search:** forbidding Google from presenting answers to search queries as both Google and its largest competitors have done since 2007, with results that deliver a mix of Web links, news links, places, maps, and images, rather than merely providing 10 blue links to Web sites, just as many search engines did years ago.
3. **Google-Specific Fair-Use Limits:** forbidding Google from crawling and using others' Web content while forcing Google to let others crawl and use Google's content, thereby inverting the copyright fair-use doctrine, the trespass-to-chattels doctrine, and raising constitutional concerns.
4. **No Bidding:** constraining Google's ability to compete for acquisitions and exclusive partnerships, harming acquisition targets and consumers while favoring the most deep-pocketed competitors.

5. **Continuous Disclosure:** requiring numerous ongoing disclosures, many of which Google already provides, and others that would enable spammers to manipulate Google's search algorithms or empower its less innovative competitors merely to copy new Google products more rapidly.

To evaluate these categories of proposed remedies, this article is divided into two primary sections. The first sets out some background regarding the relevant facts of the Google inquiry and the law of antitrust remedies. The second addresses each of the five classes of proposed remedies. The article concludes that none of these proposed remedies is workable and that antitrust law specifically disfavors many of them.

I. BACKGROUND

We begin with a brief review of the facts and applicable law and policy concerning antitrust remedies and consumer welfare.

A. FACTS AT THE CENTER OF THE ANTITRUST INQUIRY

In June of 2011, Google confirmed that it is under investigation by the FTC.[9] The following September, the US Senate's Subcommittee on Antitrust, Competition Policy, and Consumer Rights held a hearing on Google that focused almost exclusively on one topic: whether Google's search engine preferences other Google products or deliberately harms Google's competitors.[10] In December, the top Democrat and top Republican on the Subcommittee sent a letter to the FTC to encourage the ongoing investigation and reiterated the focus on search bias.[11] The debate over Google's search bias extends beyond the FTC and Congress, and has also prompted debates in academic circles, think tanks, the press, and abroad.[12]

As the case against Google would be a monopolization case, we can begin with the two legal questions that shape the factual analysis in any monopolization case.

Those questions are whether the company has monopoly power and, if so, whether it has abused that monopoly power to exclude rivals on a basis other than efficiency or innovation.

First, Google's competitors argue that Google has monopoly power, because, depending on the measure, Google processes roughly 65 percent of search queries through general search engines.[13] Google denies having monopoly power, arguing that it competes aggressively with general search engines such as Microsoft's Bing (which also powers Yahoo! search, another competitor), smaller general-search providers, and other tools for finding information. These other tools include Facebook and other social networks, which direct considerable traffic to news sites, among others;[14] Twitter and other microblogs; specialized search engines such as Yelp and Amazon; and other tools, including mobile apps.[15]

Google's complaining competitors also argue that Google has engaged in legally "exclusionary" actions. Antitrust law protects "competition" but not specific "competitors."[16] Courts have recognized that antitrust law encourages aggressive competition but that distinguishing exclusionary conduct from aggressive competition is often difficult. As a result, whether or not conduct is exclusionary often turns on whether the monopolist's actions cannot be explained by innovation, efficiency, meeting competition, or serving consumers, and is best explained as having no business purpose beyond destroying competition.[17]

In alleging exclusionary acts, Google's complaining competitors have thrown a lot of ingredients into a "monopoly broth,"[18] but focus on alleged search bias. The competitors accuse Google of nontransparent manipulation of its search results either to favor its own properties or to punish specific potential competitors. The argument that Google favors its own properties is derived primarily from Google's use of a Universal Search instead of 10 blue links. Before 2007, Google displayed results generally as 10 links to Web pages on each results page. In 2007, Google introduced Universal Search, which displays results not only from Web sites, but also, from images, videos, news, maps, and places. Google's competitors argue that Universal Search favors Google's own "specialized search properties," such as Google Maps, Google Places, and Google Products, over competing specialized search providers, such as MapQuest, Yelp, Foundem, and Nextag. For example, in February of 2012, a TripAdvisor executive accused Google of bias because Google Places results show up higher on the screen than some other results, including TripAdvisor's.[19] To the competitors, from an antitrust viewpoint, Google is tying together two distinct products—general search and the specialized search tools—thereby making it difficult for specialized competitors to receive as much traffic from Google's search users.

In response, Google argues that Universal Search is not exclusionary but innovative and responsive to consumers. First, Google argues that the attack on Google's integrated search results reflects an attempt to lock into place a (perhaps inaccurate) view of what search engines did in 2007. Since 2007, all search engines have not only moved to Universal Search,[20] but also, Bing, Yahoo!, and Google have introduced social search functionality—with Bing doing so in partnership with the largest social network, Facebook.[21] Bing has advertised itself as providing answers and has criticized Google for providing links without context.[22] Second, Google maintains that consumers go to search engines for answers and that those answers may be more usefully categorized by images, places, or news, not merely through links to Web sites.[23] Third, as noted, Google's leading general-search competitors, Bing and Yahoo!, also display results "universally" rather than providing 10 blue links,[24] which likely reflects efficiency and consumer preferences, rather than exclusionary conduct. Fourth, research demonstrates that Google "favors" its own properties, such as Google Places, no more than Bing does.[25]

Since 2007, disruptive small competitors have aimed at innovations far beyond presenting 10 blue links to Web sites: Bit.ly has announced a predictive future search product,[26] Blekko uses a suggestive, hashed search and weeds out content farms and spammy sites (while opposing the Google antitrust inquiry, declaring its willingness to compete against Google in the market),[27] StumbleUpon offers a serendipitous search,[28] DuckDuckGo aims to provide answers, not results, and does not collect personal information.[29] Chomp is considered the best tool for searching the iPhone app store, resulting in Apple's recent purchase of Chomp.[30] Several other companies compete based on privacy (Ixquick), security and family-friendly defaults (Yippy), and even environmental effects (Gigablast).[31] Google's leading engineers are predicting that the future of searches will be more like Siri than like 10 blue links: They will be mobile and increasingly reliant on artificial-intelligence processing of concepts, not keywords.[32] The Google competitors have not, according to Google, demonstrated that consumers are better served by requiring Google to maintain its 10-blue-links display from years ago while at the same time other companies continue to innovate their search engines.

In contrast to the argument that Google favors its own properties, the argument that Google specifically penalizes particular competitors rests largely on specific complaints from particular companies that rank poorly because of a hypothesized "manual" adjustment by Google or a general Google policy. For example, Foundem, a small UK-based price-comparison site most famous for complaining about Google, argues that Google has deliberately punished Foundem because it is a search engine competing with Google.[33] Google replies that it does not "cook" the results to disfavor competitors and also notes that, to meet consumers' demands, it favors sites with original content, rather than sites consisting of merely lists of links to other content. According to Google, its users understandably go to Google for answers, not for links to sites consisting of additional links to answers.[34] Finally, Google asserts that no Web site (competing with it or not) is "entitled" to a certain amount of traffic from Google or to being highly ranked in particular searches; rather, Google has the right to determine its search results, as it is a given that all sites would prefer high rankings for some searches.

In light of Google competitors' arguments regarding search bias, several academic experts have debated the subject and potential solutions for the perceived problem. Frank Pasquale and Oren Bracha published the first piece arguing for considering "search neutrality" in 2007.[35] Since then, Professor Pasquale has proposed, beyond "search neutrality," a government-funded search engine.[36] Google competitors and their consultants have championed "search neutrality," while several academic experts have rejected the concept as incoherent and problematic. Harsh critics of search neutrality include Eric Goldman, James Grimmelmann, Daniel Crane, and Joshua Wright.[37]

In addition to the focus on search bias, Google's competitors raise other arguments. They suggest that Google is free-riding off their content (although violating no intellectual property laws) when Google points users to newspapers and to other sites willingly indexed by Google, that Google is deceiving users about its search-engine results, and that Google is apparently engaging in exclusionary exclusive deals and acquisitions by outbidding the similarly deep-pocketed Microsoft.[38] Google's competitors have proposed almost two dozen remedies to address these alleged actions.

B. REMEDIES IN ANTITRUST LAW

Cases of equitable remedies for monopolization have three goals: to terminate a defendant's unlawful conduct, to prevent that conduct's recurrence, and to reestablish the opportunity for competition.[39] The third goal, reestablishing the opportunity for competition, should aim merely to reestablish the competitive opportunities prior to the anticompetitive actions rather than aim to remake the market.[40] The "daunting challenge" is selecting a remedy that furthers these goals "without imposing undue costs on the court or the parties, without unnecessarily chilling legitimate competition, and without undermining incentives to invest and innovate."[41]

The study and theory of antitrust remedies, however, leaves much to be desired. As the DOJ has observed, "Notwithstanding their importance, the study of remedies has been somewhat neglected."[42] Experts observe that there is "no treatise" on remedies and no "body of systematic knowledge" identifying patterns in precedent or evaluating which remedies have worked and which have failed.[43] Critics contend that, in antitrust investigations, somehow, "[R]emedy [is] something that gets thought of at the last minute with the least resources."[44] Indeed, a former senior official at the FTC, who has also noted that there is "no book" on remedies, has conceded that he personally worked on remedies that failed because the FTC poorly understood the industry involved and/or potential remedies in general.[45]

In furthering the goals of cases of equitable remedies for monopolization, three features of antitrust law are most influential in guiding our analysis: a focus on consumer welfare—not competitor welfare, a sensitivity to institutional limitations in implementing ongoing remedies, and a concern for dynamic innovation.

First, antitrust remedies should focus on consumer welfare, not on the welfare of specific competitors. As the FTC and DOJ have noted, a "remedy should focus on preserving competition, not protecting individual competitors."[46] A remedy should not slow down the most efficient and innovative leaders merely to help weaker competitors.

Second, regulators and academic experts increasingly take into account technological innovation and dynamic efficiency, rather than merely focusing on static efficiency.[47] The benefits of innovation and dynamic efficiency likely far outweigh the benefits of static efficiency over the long run, particularly in innovative markets.[48] Therefore, courts must weigh the effects of particular remedies regarding innovation.

Third, and centrally important for the Google analysis, courts are sensitive to institutional constraints.[49] Herbert Hovenkamp, editor of a highly influential antitrust treatise,[50] has counseled courts that, "The basic rule should be nonintervention unless the court is confident that it has identified anti-competitive conduct *and can apply an effective remedy*"[51] (emphasis added). Generalist courts often lack the competence, information, and institutional tools to implement intrusive economic oversight and regulation, such as price setting and network-infrastructure sharing, leaving such remedies to specialized federal agencies tasked with implementing such policies.[52]

Such institutional sensitivity is reflected in two ways. First, when remedies are appropriate, courts favor remedies that are less intrusive and easier to administer over other remedies. The Supreme Court has stated that, "[A]ntitrust courts normally avoid direct price administration, relying on rules and remedies . . . that are easier to administer."[53] Second, sometimes the lack of an administrable remedy counsels against finding liability. For example, because of institutional limits, antitrust courts are reluctant to impose a "duty to deal" with competitors, requiring a company to deal with its competitors on particular terms. As the Supreme Court has held, a court should not "impose a duty to deal that it cannot . . . reasonably supervise," and problems should be considered irremediable "by antitrust law when compulsory access requires the court to assume the day-to-day controls characteristic of a regulatory agency."[54] Similarly, the Supreme Court does not recognize claims for "price squeezes," partly because of the difficulty of administering a remedy: "Institutional concerns also counsel against recognition of such claims. Courts are ill suited 'to act as central planners, identifying the proper price, quantity, and other terms of dealing.'"[55]

As the following section of this article establishes, the remedies proposed by Google's competitors and their consultants would benefit those competitors rather than benefiting competition, would stifle the innovative efforts of both Google and its competitors, and would require antitrust courts to act as supervisory regulatory agencies. Several remedies would impose on Google a duty to deal with complaining competitors. Others, such as a price-squeeze remedy, would require constant monitoring and the matching of two moving targets in different markets: the quality of Web sites ranked in search results and the consumer preferences for their relevance. For these reasons, the proposed remedies are flawed and should not be considered.

II. REMEDIES PROPOSED BY GOOGLE'S COMPETITORS

FairSearch and ICOMP proffer numerous remedies. The first category would require "neutral" search algorithms and the "neutral" display of search results, although neutrality in searches is an incoherent concept and attempting to enforce it would require daily government oversight (and approval) of business and engineering. The second category would eliminate one of Google's competitive innovations, Universal Search, perhaps even by splitting Google into a "general" search company and a "specialized" search company, even though Universal Search is a four-year-old innovation and has also been adopted by Google's main competitors to meet consumer preferences. A third category of remedies would impose transparency requirements on Google—despite Google's existing transparency efforts—that would benefit Google's competitors and spammers far more than they would benefit consumers and legitimate Web-site operators. The fourth category of remedies would warp traditional copyright law uniquely for Google's search products and impose on Google unprecedented duties to deal with competitors seeking to technically crawl its servers. The fifth and final category would impose a higher burden on Google in the area of acquisitions and exclusive arrangements, either blocking these altogether or subjecting Google's efforts to greater scrutiny than the efforts of other firms. On balance, these remedies do not further—but rather threaten—consumer welfare, competition, and innovation.

A. SEARCH NEUTRALITY

Many of the most prominent proposed remedies aim to ensure that Google's results are not biased against competitors.[56] The FairSearch White Paper proposes "[p]rohibiting Google from reducing the ranking of any site because it competes with a Google site."[57] The ICOMP Report includes a rule forbidding "retaliation" against companies that exercise one of the *other* proposed remedies, including the reduction of the search placement of those companies.[58] That report also provides an analogy to an antitrust remedy employed against airlines' computer reservation systems (CRS) in the 1980s and 1990s, which would require Google not to privilege sites in which it has an interest.[59] To implement these neutrality mandates, some have proposed the aid of a "technical committee."[60]

These remedies would not benefit consumers because not even technical committees could define the necessary metric for "neutrality" and administering such a metric would destroy Google's ability to compete, innovate, and serve consumers. In the language of antitrust law, these remedies impose a "duty to deal with competitors," by requiring Google to deal with and display competing sites under certain terms. As noted above, “No court should impose a duty to deal that it cannot explain or adequately and reasonably supervise.”[61]

1. A Court Could Not Explain This Remedy

A court could not adequately explain the duty to deal with competitors with specificity. Despite the inquiry and competitors’ incentives, no one has articulated a specific formula or metric for determining when or if Google’s display opinions improperly disadvantage rivals. Search is ultimately an opinion about the likely relevance of some information to a query. Indeed, several courts have held that, for constitutional purposes, search results are “opinions.”[62] If search results had easy “right answers,” Google would not have to experiment daily and tweak its engine more than 500 times a year.[63] Professors James Grimmelman and Eric Goldman have both elaborated on this point, concluding that it is impossible to define an objective metric for determining the “neutrality” of search opinions.[64] As a technology journalist observed, “Trying to prove whether Yelp or Google Places provides the better results is very subjective.”[65] Consider the example of vanity searches, in which a user’s search query is his or her own name. What is the “right” ranking? Is a profile page on Google Profiles more relevant than an AOL About.me page or the user’s About the Author page on his or her blog (whether that blog is on Google’s Blogger or the competing platforms of WordPress and Tumblr)? No objective metric is helpful in making such a determination.

Beyond these hypothetical examples, we can look to actual proposed examples of such bias. The most prominent example is Foundem, a “vertical search” company in the United Kingdom that claims Google penalized it because Foundem is a competitor. Foundem has complained to regulators and users, and it created a site devoted to “search neutrality.”[66] Essentially, Google’s response is that Foundem deserves its poor rankings because of consumer preferences. To Google, Foundem is a low-quality site lacking original content and merely copying content off other sites.[67] Google favors sites with original content because users generally want the original source, not a site that merely republishes other content. Anyone who has published in the *Huffington Post* likely hopes that search engines serve the original post first, rather than the many dozens of (generally lower-quality, spammy) copying sites that mirror that content. Foundem responds to this Google policy by noting that all search engines competing with Google have little original content. Google replies that its users go to Google for answers, not for links to other sites that link to answers. To use vanity searches of one's own name as an example again, a search-results list of links to other search engines' results would not be helpful for such searches. Indeed, vanity searches would not want other users to see a list of links to other search engines when those users are searching for their names.

An executive at one of the United Kingdom's leading technology marketing firms was skeptical of Foundem's claims, considering that so many other vertical search engines place very well in Google's search results. Moreover, he observed that Foundem resembles a link directory, whose links lead "to nothing special"—content "culled from product feeds," with "duplicate content all over the place," and pages inviting user reviews but not having any such reviews.[68] This executive noted that Foundem fails to even engage in proper search-engine optimization for various technical reasons, and he believes that Google's failure to rank Foundem highly was evidence that Google's algorithm was doing an excellent job of distinguishing content that is useful for users.[69]

Who is right? Is there a metric for determining which opinion is right? Even Microsoft consultants have no simple answer, noting, about this very issue: "[I]t is difficult to resolve the disagreement without making difficult judgments about the value and importance of individual sites," although they go on to assert that Foundem's supposed "industry accolades confirm site quality."[70]

While no specific metric is available for judging the "best" opinion, a more general metric would provide insufficient guidance to Google and its competitors. The Supreme Court has stated that, "[A]ntitrust rules 'must be clear enough for lawyers to explain them to clients.'"[71] The same must be true of antitrust remedies. Google changes its algorithm 500 times a year. With these changes, some sites rise in rank and some fall. Short of an unlikely "smoking gun" in Google's policies, source code, or an incriminating email exchange, Google could very plausibly argue that each change merely aims to provide the most relevant results for users. A general rule against disadvantaging competitors' links, however, would invite companies both to claim to be competitors and then to lodge harassing complaints to jockey for better placement.[72] Companies could object weekly, if not daily, to their search placements, as all would prefer better placement for particular queries. Rather than investing in better, more relevant content and in increasing visibility through diverse means, companies would spend resources in rent-seeking through a poorly crafted antitrust remedy lacking specific guidance.

Here is one more example: Competitors complain that Google's Universal Search results might place links from Google Places over links to Yelp, place results from Google Flight Search over links to Trip Advisor, place Google Maps results over MapQuest links, and group Google's results for News above Web links to other news sources. The proposed bias remedy, however, would empower Yelp, TripAdvisor, MapQuest, and any news organization or aggregator to argue that Google has disadvantaged them. If Google had to justify every query resulting in a link to a Google product outranking a link to a supposed competitor, Google would either have to abandon Universal Search or include its own properties at the bottom of the displayed results as a precaution. Google would have to do this even though many believe that Google Maps and Google Flight Search often include better, more relevant results, and even though some users likely use Google Search partly because they prefer the "specialized" Google properties over specialized Bing search properties in Bing's Universal Search.

2. A Court Could Not Adequately Supervise This Remedy: A CRS Analogy and Technical Committees Would Fail

A court (or agency) could not "adequately and reasonably supervise" this remedy—regardless of the debatable success of the airline CRS remedy decades ago and even with the help of a technical committee.

To supervise this remedy, a court or agency would have to adjudicate complaints from a potential "competitor" for existing algorithms—about which Google's competitors already complain[73]—and potentially adjudicate every one of the 500 tweaks that Google makes to the algorithms every year, while applying an undefined metric, as discussed above. It is doubtful that any court or agency could administer such a remedy, let alone administer it rapidly. The bias adjudications would require courts or agencies to monitor thousands of lines of code changed daily to measure a continuously moving target: the interaction between (often-modified) sites and consumer preferences regarding relevance to queries. A court or agency simply could not engage in such adjudication without crippling Google's ability to innovate rapidly and respond to consumer preferences. Hindering Google's ability to innovate might help competitors, but it would harm consumers.

CRS Analogy. Despite this obvious administrability problem, Google's competitors claim that these remedies are indeed workable, largely by pointing to a remedy implemented by the Civil Aeronautics Board (CAB) for airline CRSs in the 1990s and suggesting a "technical committee." Before the advent of Internet and tools such as Expedia, Travelocity, and Google Flight Search., airline customers used travel agents to book flights. The travel agents had access to CRS terminals, enabling them to see flight availability and pricing for various major airlines. The airlines owned the major CRSs and favored their own flights. United Airlines owned a CRS called Apollo, and it might have listed United Airlines flights first on queries even if other flights were less expensive and had fewer stops. In the words of Microsoft consultant Ben Edelman, "The Department of Justice intervened, culminating in rules prohibiting any CRS owned by an airline from ordering listings us[ing] any factors directly or indirectly relating to carrier identity."[74] That consultant went on to say that, "[M]ost travel agents hesitated to switch CRS's, and extra searches would be both time-consuming and error-prone. Prohibiting biased listings was the better approach."[75]

This analogy, however, is inapt, and it weighs against Google's competitors. As others have argued, the analogy is inapt in terms of the market dynamics; through contracts, CRS networks had multiyear termination access monopolies with travel agents, whereas consumers today can easily switch search engines and sites can reach users through many other means.[76] More importantly, the analogy is inapt in terms of the dynamics of the remedy itself.

First, the CRS rules reflected a *regulatory* policy, not an antitrust remedy, and the Supreme Court has explicitly held that antitrust courts disfavor remedies requiring them to take on the role of regulatory agencies.[77] In the last year of its existence, 1984, the CAB adopted these CRS rules and the Department of Transportation (DOT) implemented the remedy until repealing the rules in 2004.[78] Simply put, this was not an antitrust remedy, and neither the generalist courts nor the antitrust agencies administered the rules. In fact, as Judge Richard Posner noted, "the Department did not file an antitrust suit" before the CAB rules were adopted.[79] Indeed, the DOJ never brought suit; the many private antitrust suits failed; and a court in a 1989 antitrust case decided that the CRS market was competitive.[80] Therefore, because a sector-specific regulatory agency adopted and enforced the rules, Edelman's analogy is inapplicable. Indeed, it suggests that an antitrust court would take on the role of a regulatory agency, despite the Supreme Court's admonition.

Second, even if the DOT could have implemented the CRS remedy, CRS is so much simpler a technology than Internet searches are that it is doubtful that any regulatory agency could implement the proposed search "neutrality" remedies. CRS displays results for a specific class of queries (flights) based on a few simple criteria, such as listed price, stops, destination, date, and time.[81] On the other hand, search engines must respond to far more complex (and often incomplete or suggestive) queries. It is far more difficult to determine whether competitors are penalized by a search engine's search of "Luke Pelican," "best shoe store in Washington, DC," or "best happy hour in Austin" than by a search of flights from Detroit to Miami. The queries for a search engine are more complex; the searched dataset of the Internet is many magnitudes greater than a search of upcoming flights is; and the factors for determining relevance in an Internet search are far more varied, as well as subjective, than are the objective criteria of the price of flights and the number of stops. As a result, even if an agency could define and adjudicate preferences for more expensive, nondirect United Airlines flights against competitors' flights, this does not suggest that the agency could define and adjudicate preferences for Internet searches. One is like tic-tac-toe; the other is like chess.

Technical-Committee Proposal. To address the complexity of Internet searches, a technical committee would be of little value because these searches and the resulting problems in determining preferences are not merely "technical." The argument for a technical committee draws its historical inspiration not from the airlines, but from the *United States v. Microsoft* antitrust case.[82] In the *Microsoft* case, the courts determined that Microsoft had engaged in illegal monopolization, and Microsoft agreed to a remedy with the federal government and some states that included a technical committee.[83] The technical committee merely served these parties, providing technical advice but lacking legal and other expertise.[84] The technical committee was proposed in the first draft of the *Microsoft* consent decree that also required Microsoft to provide technical details ensuring that Web servers could interoperate with Microsoft's monopolistic operating system Windows. (This was the fourteenth draft by some counts.)[85] The technical committee had access to source code, the ability to interview Microsoft staff, and other powers, primarily interfacing with a Microsoft compliance officer.[86] The technical committee consisted of three members, chosen for 30-month terms, with possible extension, under particular and detailed rules.[87]

There are indications that this committee was not particularly successful in the *Microsoft* case. First, Microsoft's executives criticized the technical committee, doing so before the FTC and the DOJ at a workshop on remedies for high-tech industries.[88]

Microsoft's top lawyer for antitrust issues noted that the technical committee's staff ballooned from three people to 40 and that the majority of Microsoft's compliance efforts required laborious and time-consuming back-and-forth with that committee.[89] Second, this enlarged staff risked the theft of trade secrets. In fact, some consultants for the committee refused to return committee-related documents, forcing Microsoft and the government jointly to ask for a court order "to protect the confidentiality of all TC [technical committee] material (including material held by the TC that is Microsoft confidential material) by requiring all members of the TC and all consultants or staff hired by the TC to return all materials relating to the TC to the United States."[90] As Microsoft publicly complained to antitrust agencies about the remedy and faced theft of confidential information, it is doubtful that the technical committee turned out to be the success that some had hoped it would be.

Moreover, even if the technical committee had been successful for the *Microsoft* case, a committee to implement the Google "neutrality" remedies would face far greater challenges. First, the primary task of the Microsoft technical committee became ensuring interoperability between competitors' Web servers and Windows.[91] Interoperability is a common problem that technology companies frequently address; companies often work closely with competitors—sometimes in standard-setting bodies or other formal bodies—on such issues.[92] While the goal of interoperability is somewhat subjective, interoperability can in fact be tested: Relevant technologies could fail to interoperate. Determining unbiased search results, on the other hand, is a very different matter. Lack of bias in results cannot be tested in the way that interoperability can. Indeed, perhaps for this very reason, no one has ever set up a technical committee for determining whether search results are unbiased, whereas many committees work on interoperability in the technology sector.

Second, the protocols necessary to connect Windows to Web servers did not need to be constantly improved—500 times a year. As the Windows protocols were necessary for interoperating with a fairly static operating system, these protocols benefited more from consistency and longevity than do search algorithms, which can and should be constantly modified. A technical committee therefore could not move quickly enough to make sense of, and to help the government make sense of and understand, two algorithm changes a day, let alone portions of existing algorithms subject to competitors' complaints. Attempts to implement such a remedy would cripple Google's ability to implement daily innovations. Competitors would have 500 opportunities a year to petition a technical committee, thereby grinding Google's engineering process to a halt and making it impossible for the company to operate efficiently. For each complaint, Google would need to provide expert testimony on technical matters and on consumer behavior for scrutiny by the technical committee that would distract and preoccupy Google staff and leadership. Such permanent litigation would necessarily add additional bureaucratic layers, compliance costs, and transaction costs for Google (and for competitors litigating these cases), thereby slowing down Google engineers' ability to roll out daily innovations designed primarily to benefit consumers.

Third, and most important, setting up a technical committee simply would not resolve the core analytical problem for the proposed "neutrality" remedies. The committee would have no useable metric for determining unbiased search results. A court or agency could not ask a technical committee to determine such a metric because a metric is not a "technical" question. Someone would have to define what it means for Google to "penalize" a competitor through search rankings lower than those that Google provides to a noncompetitor, meaning that someone would have to define what the "objectively" correct ranking would be for a noncompetitor. Coming up with an "objective" correct ranking is not merely a technical, computer-science question, largely because there is no "objectively" correct ranking. Again, search rankings reflect opinions. Companies can and do disagree about what result is most relevant for a particular query—which is why search engines provide different results. The *Microsoft* decree does not suggest that a technical committee could address such a nontechnical limitation. In *Microsoft*, the technical committee served the government and states, providing mere technical expertise, while the federal government's and states' lawyers retained the ultimate responsibility of enforcing the decree. No technical committee, however, could provide “technical” advice to create or implement an undefined standard of objectively “neutral” or “correct” engine search results. While lawyers might want to punt the hard questions about neutrality in search engine results to some purely “technical” committee, the committee would be unable to answer the questions without recourse to nontechnical standards, none of which have been demonstrated to exist.

B. TEN BLUE LINKS: FORBIDDING UNIVERSAL SEARCH

Even beyond the impact of the first category of remedies for Universal Search, Google’s competitors propose a second category of remedies that would effectively eliminate the ability of Google (and only Google) to offer Universal Search. Underlying this proposal is the assumption that Universal Search is either inherently anticompetitive or that it facilitates so much difficult-to-remedy anticompetitive behavior that it should be banned prophylactically. To adopt these remedies against Universal Search, a court would have to determine under antitrust law that Google has the power to exclude specialized search providers such as Yelp, despite the presence of competing search providers, competing sources for generating traffic and raising brand awareness, and users’ ability to access such search providers directly online.[93]

Flaws of Google Competitors’ “Ten Blue Links” Proposed Remedies

Google’s competitors propose two remedies in this category. First, they have analogized a remedy imposed on Microsoft in Europe, called browser swapping. In Europe, Microsoft cannot load Internet Explorer as the default Internet browser but must instead provide users a choice among Safari, Opera, Mozilla Firefox, Chrome, and others. A Microsoft consultant has proposed applying an analogous remedy to Google Search results.[94] Specifically, users could choose a default map service, default news service, default local search, and so on, to display on Google’s Universal Search page. Second, going even further, Google’s competitors propose divestiture “[s]eparating [1] the general search and paid search business from [2] products that provide specialized search or information content services.”[95] This remedy would undermine Google’s ability to offer Universal Search as it does today by requiring it to present merely 10 blue links, as it did in 2007, or to partner with other companies' specialized services to offer Universal Search.

These proposed remedies would further competitors' welfare and impose enormous administrative costs on Google, at the expense of benefits to consumers and innovation.

First: Eliminating Universal Search would harm consumers. Google's competitors have put forth no evidence that consumers oppose an integrated Universal Search or that they want other companies' specialized results to show up more prominently in the list of Google's search results.[96] Indeed, Universal Search saves consumers both time and frustration, which is why all major market players, including Bing and Yahoo!, have adopted Universal Search. The downsides are minimal for users. If a user prefers using MapQuest for maps and Google for general searches, he or she can navigate directly to MapQuest for maps. The user can type MapQuest's URL in the browser's navigation bar or search on Google (or Bing) for "MapQuest." The user can also search for "maps" to find a range of map services beyond Google Maps. Indeed, MapQuest is already one of the most popular search queries for "maps" on Google Search, alongside some other Google competitors.[97]

Second: These two remedies target a well-known source of innovation: integrating previously nonintegrated "products."[98] Some vertical integrations are harmful to competition and innovation, and they are therefore condemned by public policy. An integration is most likely problematic when the product enjoys durable high barriers to entry (*e.g.*, telecommunications networks) and users face high switching costs (*e.g.,* browsers in the 1990s, when users received software through compact disks, not broadband downloads).[99] Google's competitors have not made a persuasive case that search engines face durable high barriers to entry that dissuade innovators and investors from entering the market or that users face high switching costs.[100]

On the other hand, antitrust policy generally favors integrations, as they may turn out to be innovative and pro-consumer. Consider the iPhone, whose innovation was largely one of *integration*, combining into a single device the following: (1) a mobile phone, (2) an Internet connectivity device, (3) a portable music player (and later), (4) a digital photo camera, (5) a video camera, and (6) a GPS device.[101] Although the iPhone and similar devices innovatively tie together several products (or features), few would argue that antitrust courts should require these innovators to re-engineer their devices so that iPhone users can swap in a Canon or Sony camera instead of Apple's chosen camera, or swap in a Zune or Rio music player instead of Apple's iPod. Nor would they argue that Apple should be divided into a music company and a phone company and a computer company.

Such innovative integration is even more common in software. Facebook began as a social network of college profiles, and then it provided photo hosting and sharing (which had originally been Flickr's core product), microblogging through status updates (originally Twitter's), video sharing (YouTube's), instant messaging (AIM's), email (Hotmail's), and Facebook Deals (Groupon's).[102] Indeed, in Silicon Valley, investors often refer to some start-ups as providing merely a "feature" rather than a "product," or as providing a "product" rather than a "business,"[103] suggesting that "features" and "products" become vertically integrated with larger companies to most efficiently provide consumer benefits. Courts recognize that the market, rather than litigation, is usually more competent at determining the optimal extent of integration. Courts lack that competence.[104]

By targeting Universal Search's integration, the competitors' proposed remedies would sorely test courts' competence to make accurate predictive business judgments about which integrations would harm consumer welfare in the dynamic market of Internet searches. The error costs are high, particularly because the market has already moved in the opposite direction of 10-blue-links results and "pure play" generalized search companies. For example, Internet searches are only a fraction of Microsoft's business, which includes operating systems (Windows), office software (Word and Excel), cloud-storage service (SkyDrive), gaming systems (Xbox), and telephony (Skype).[105] According to a recent *Fast Company* cover article, "The Great Tech War of

2012: Apple, Facebook, Google, and Amazon battle for the future of the innovation economy,"[106] like Microsoft, none of these companies is a pure play in anything. Each has diversified offerings, from messaging to social media to cloud storage to retail sales to tablets to payment systems.[107] Google competitors' proposed remedies would artificially limit the integration undertaken by only one of the four companies—Google.

Third: These remedies assume that the benefits enjoyed by Google's competitors in specialized searches—whatever they might be—are worth the costs of stifling innovation in general searches. Innovations in general search services are pushing competitors to be more mobile, more voice-activated, and more dedicated to social and real-time results.[108] Against this backdrop, a focus on the display of specialized search results on a desktop screen today is as outdated as focusing on innovations in fax machines and search directories. The remedies rest on preserving the 1998 gold standard of 10 blue links on a search page—before major search engines moved to Universal Search with Google's display innovation in 2007.

Fourth: Beyond the dubious benefits to both static consumer welfare and to dynamic innovation, the initial administrative and technical costs for these remedies would be enormous. For browser swapping, an agency or court would have to have power over the design of user interfaces for Google Search, even though courts lack such design competence. Unless it were to abandon Universal Search and return to 10 blue links, Google would be required to include tabs for users to swap Google's browser with those of competitors such as Yelp for local searches, MapQuest for maps, Expedia for travel, and so on. A court would likely entertain arguments about how each service is displayed generally, whether Google can attempt to match the services' design to match the rest of the interface or whether it must use the competitors' usual color schemes and clashing fonts—lest Google use deliberately distasteful colors and designs for Yelp and MapQuest. A court would determine how often, and by what method, a user would select a service (*e.g.,* once, monthly, or whenever a new, specialized search is launched). The court would have to approve any major site redesigns, delving into consumer preferences and engineering. Improved interface design, however, is a critical element of digital competition,[109] and one of Google's competitive advantages,[110] meaning that litigation of Google's design choices would likely slow down and impede Google's design innovation, particularly relative to its competitors.

To implement the divestiture remedy, a court would have to oversee which of Google's services would stay with the Google "General" Search company and which would be spun off into a newly created Google "Specialized" Search company; moreover, the court would have to review each new innovation to see which company could undertake it. For example, the court would determine whether Google News must be spun off as a costly specialized search product, or whether Google News is merely a way to categorize recent "newslike" results in a general search. For consumers, these "products" might all just be different ways to provide answers to their questions. For the divestiture remedy, however, products must be specifically defined and split up based on the business models of competitors such as Yelp and MapQuest. Beyond defining the products for divestiture, the court would also have to determine which company receives which search patents and other intellectual property, as well as the terms of cross-licensing, a task likely to require considerable specialized competence and the gathering of technical and expert information from the parties. The court would also have to review, rewrite, and reject or approve the service contracts and intellectual-property licenses that Google has entered into with hundreds of business partners, as contracts with third parties likely draw no artificial boundary between specialized and general searches.

Perhaps more importantly, even after a divestiture, a court would have to engage in burdensome and sluggish ongoing regulation that would further hinder Google's search innovations and impose enormous administrative and compliance costs. Whenever Google "General" would seek to roll out a new product, competitors would petition the court for a judgment on whether the product violates the divestiture remedy. In the process, these petitions would slow down Google "General's" innovations and would enable competitors to study and copy Google "General's" product, and to eliminate or steal its first-mover advantage on particular products. Divestiture would also eliminate Google "General's" ability to integrate technologies for the benefit of consumers, while Facebook, meanwhile, could integrate photos, videos, and music, and Amazon could integrate far more products than book delivery.

Moreover, the court would have to monitor all deals between Google "General" and specialized-search companies to ensure nonexclusivity and nondiscrimination. Under the theory of the proposed remedy, Google "General" should not be able to contract to make the new Google "Specialized" its exclusive provider of specialized service. That would clearly undermine the intended effect of the remedy. Nor could Google "General" make an exclusive deal or preferential deal with *any* other specialized search company, such as Yelp, because exclusivity would similarly undermine the competition in specialized searches sought by this strong remedy. Indeed, a court or agency would have to continually monitor any deal that provides any specialized search engine with any preference over other companies, because preferences (perhaps no less than exclusivity) could undermine the specialized-search competition sought by this remedy. This ongoing regulation would require the court to review and approve all such business partnerships, evaluating their economic terms and revenue shares; technical and interoperability terms; and other terms, such as duration, placement, design, and so on. Such scrutiny would impose huge costs and delays on Google, merely to ensure an outcome in the search market that likely harms both static and dynamic efficiency and consumer welfare.

Therefore, while the remedies of specialized-search swapping and divestiture are unlikely to benefit consumers, who, by and large, value Universal Search, they would undermine innovation and impose huge administrative costs on Google.

C. TRANSPARENCY

Google's competitors propose a wide range of disclosure rules to implement search neutrality and to counter Google's alleged "deception" of users. There are a number of vague proposals, but it is worth numbering them specifically. The competitors propose "[p]rohibiting Google's deceptive display bias" by "[1] requiring clear notices to consumers of those links in which Google has an economic interest and/or [2] that Google has placed on the search results page through any process other than its normal search algorithm,"[111] including disclosure of manual adjustments to algorithmic searches.[112] ICOMP proposes that, "Remedies should in some way require Google to become more transparent and open generally – in particular, as regards the way in which it organises its search results, [3] its AdWord policy, its explanation of reductions in quality score, [4] AdSense revenue calculation and [5] algorithmic updates."[113]

Flaws of Google Competitors' and ICOMP's Proposed Remedies

Each of these proposals is unsound and inappropriate, either because the disclosures merely further the flawed search "neutrality" remedies or because they request information that Google publishes or has pro-consumer reasons not to publish. Moreover, the competitors could attempt to prove deception more easily without an antitrust case.

Algorithmic Updates: There is little apparent reason for Google to reveal even more about its algorithmic updates and how it organizes its search results. First, Google provides considerable information to Webmasters regarding its algorithms. Google has published hundreds of research papers revealing the technologies behind Google, hundreds of blog posts, and thousands of responses in search-help forums and Webmaster-help forums.[114] Google has also begun publishing monthly notices identifying major algorithm changes for the month.[115] Google makes these disclosures subject to plausible limits: "[T]here are certain aspects of our algorithms that must remain a secret. Otherwise, we would enable some spammers to game Google's results, which in turn punishes site owners who offer legitimately useful websites and services."[116] The complaining competitors have provided no evidence to suggest that Google's assertion is merely pretextual. Second, as Google suggests, too much disclosure would harm consumers who are seeking relevant information. Such disclosure would benefit competitors but not consumers; if Google Search has a problem with spam-ridden, irrelevant sites, more people will use its competitors' sites. Moreover, Google's algorithms are its key competitive advantage, and requiring disclosure of Google's detailed strategies is analogous to requiring Coca-Cola to reveal its secret formula to Pepsi. While competitors such as Bing could likely learn from Google's algorithms and provide more relevant results than it and other competitors currently do, the remedy would only benefit competitors and spammers, not consumers.

Manual Adjustments: Little evidence suggests that the government should monitor Google and force it to disclose each search result placed through "any process other than its normal search algorithm" including through a manual adjustment. First, this remedy assumes that a "neutral" *normal* algorithm returns searches but that *manual* adjustments are somehow suspect and likely anticompetitive. From a legal perspective, nothing distinguishes algorithmic changes from manual ones. Indeed, even if antitrust law somehow could enforce search "neutrality," there is nothing inherently more (or less) neutral about an algorithm or about a manual adjustment. Both the algorithms and the manual adjustments are simply two means to help users find the most relevant answers, implemented through similar technical means. When an algorithm fails for some reason—retrieving spam or irrelevant results—a manual adjustment to the algorithm, targeted to particular sites and rankings, can correct the relevance problem.[117] A manual adjustment is the technical equivalent of an algorithmic change: Both require writing another line of code into the search algorithm.

While the proposed disclosure implies that routine manual activity reflects wrongdoing, such disclosure would do little to further the search regulation remedies. Google denies "cooking" the results in the search listings.[118] If Google reveals manual tweaks, however, government engineers or competitors who study these revelations would likely be unable to identify any "biased" results reliably or convincingly. Indeed, so far, the *only* "evidence" of search-result manipulation is a study by Microsoft consultant Ben Edelman that is based on a tiny sample of 32 cherry-picked, nonrandom queries, reflecting a clearly flawed design.[119] Josh Wright, a law and economics professor at George Mason University who consults with Google, refuted that analysis in what appears to be a far more rigorous study with a far greater sample of searches that demonstrates a similar level of "bias" among the other large search engines.[120]

Second, to the extent that "manual" adjustments may be considered highly targeted *algorithmic* tweaks, Google already makes such information available. Google discloses its manual policies regarding spam, malware, child pornography, copyright infringing content, defamation (subject to a court order), personally confidential information, and other content under country-specific laws. Both Google and Bing engage in manual adjustments for such content.[121] Further, regarding general algorithmic tweaks, Google provides considerable information. It provides disclosure to Web sites so that legitimate sites can better optimize their placement in search results. It also hosts Google Webmaster Central, which contains information about how "Google crawls, indexes and ranks your site," information about "how many people found your site in search results, and how many people clicked on it" and information about "who added a link to your site."[122] Google also provides advice to Webmasters, including a Search Engine Optimization starter guide, a Webmaster Blog, a discussion forum, a YouTube channel with more than 350 instructional videos, and presentations given at search engine conferences.[123] Google provides disclosure on these items, but additional disclosure could empower spammers and others to game the search algorithms to ensure that less relevant and less useful content rises to the top, rather than directing users to the most relevant, quality content.[124]

Economic Interest: Requiring Google to provide notice of economic interest is unnecessary because Google appears, in fact, to label its products. For the Google News results, the title in Universal Search is "News," rather than "Google News," because users likely perceive the results as Google does—listings categorized by Google as news stories that link to *others'* news sites. Users may or may not consider Google News to be an entirely separate product, but there is no evidence of consumer confusion regarding which company (Google) has organized news results into a news box *on Google's search page*.[125] When a user searches for a restaurant, Google may insert a link to Google

Reviews under the main listing for the restaurant.[126] The labeling is clear: "Google Reviews." A map may also appear in the search results, and the map will generally include this notice: "©2012 Google." This phrase is legal notice under copyright law and should be acceptable in this case.

AdWords Policy and Quality Score: Google's competitors also have not sufficiently made the case that courts or agencies should require more disclosure of how Google's AdWords policy operates and "its explanation of reductions in quality score."[127] AdWords is Google's main advertising product. Advertisers of all sizes use AdWords to place ads on Google's search results and on its display network, including large partner sites and the many smaller sites that sign up to display Google AdWord ads. On Google Search, for example, advertisements are displayed above and to the right of the natural results. Users are more likely to click on the first listed advertisement than on the second, to click on the second than on the third, and so on. Advertisers prefer higher placement and pay for it. Advertisers choose to buy advertising based on certain keywords, and Google charges an advertiser *not* each time Google displays the advertiser's ad, but each time a user clicks on the ad. Because Google makes money from clicks rather than from displays alone, it does not merely auction off slots to those willing to pay the most money for each click. An advertiser could offer to pay half as much as its competitors yet receive ten times the clicks, providing more value both to consumers and to Google. Thus, Google weights the bids with a Quality Score for each keyword-ad pair and accepts lower per-click rates for those that generate more clicks and consumer value.

Google's competitors have not devoted considerable attention to the argument for requiring more transparency regarding Quality Scores and AdWords. Foundem complains that its Quality Score was very low, but Google is at least transparent about why. As Google prominently reveals, sites with high Quality Scores "feature original content that can't be found on another site. This guideline is particularly applicable to resellers whose site is identical or highly similar to another reseller's or the parent company's site."[128] FairSearch mentions other sites such as TradeComet and Sourcetool, both of which also appear to be "low quality" sites based on Google's disclosed guidelines.[129] Nevertheless, it is clear that the competitors have yet to advance a compelling case.

First, Google already publicly reveals considerable information about AdWords. Google provides information about setup, managing ads, measuring results, improving results, and billing. For improving results, Google provides information about landing-page and site-quality guidelines—defining "quality" to include featuring "relevant and original content," having a privacy policy, not altering browser settings, not automatically downloading software without notice, and so on.[130] Google's advice for improving landing-page quality includes not only two dozen pieces of advice and a video with further information, but also, links to Google's Software Principles, ways to improve a site's load time, Webmaster Guidelines, and the Quality Score.[131] The page devoted to Quality Score features even more information, including how the Quality Score affects advertisers' bids and what factors determine the Quality Score for bidding on advertising on both the Search Network and the Display Network.[132] That page also links to the Optimization Center, which provides seven general principles about how to increase Quality Scores, the fifth of which pertains to optimizing the Web site itself (including pointing users from the ad to the relevant landing page, evaluating site design, testing how the site will increase conversions, and means for enhancing user experiences).[133] Essentially, Google furnishes considerable information for advertisers, including its general advertising policies,[134] a description of the AdWords policy and quality score on each ad/keyword pair,[135] and information about increasing a Quality Score by optimizing an account.[136] It provides text, videos, links to a community of AdWords users, and a phone number to reach a Google employee.[137] Indeed, Google has incentives to provide such information to legitimate sites. Google clearly provides considerable information—and certainly enough information for Foundem and other complaining sites to know why their Quality Scores would be low on Google's advertising network.

Second, the costs of revealing even more information would include enabling competitors to copy strategies, rather than innovate their own, regarding advertisements and search results. Consumers value relevant ads for searches, and advertisers value placement on relevant searches.[138] Google's competitors could copy Google's Quality Score strategies to increase the relevance of advertisements to their own searches. Depending on the amount of information that could possibly be mandated, competitors could do so for an indefinite period of time if Google were to reveal such information on an ongoing basis. This might help Microsoft and other Google competitors, but it is unclear how it might help consumers.

AdSense Revenue Calculation. AdSense is Google's product for Web sites (or publishers) that choose to be part of Google's Display Network (the publishers display ads on their Web sites) or the Google Search Network (the publishers add a customized Google search bar to their sites). Google and the publishers split the revenue from the advertisements, as Google runs the networks matching advertisers and the Web sites on which they advertise. Google provides considerable information for publishers joining the Google Display Network, including pages of information about AdSense on Web sites, custom search engines, custom search ads, mobile content and apps, video content (embedding ads in videos), and games.[139]

Google's competitors do not focus much attention on the proposed remedy of disclosure of revenue share and provide little evidence that Google provides inadequate disclosure or that a lack of disclosure harms consumers under antitrust precedent. They merely state that Google's practices are "opaque."[140] They have failed to make the case for a remedy of disclosure of revenue share.

First, Google already publishes this share calculation, and it had done so long ago. Google's competitors complained to the US government and asked for disclosure of revenue share in October of 2011.[141] Google had already released this information in May of 2010.[142] At the time in 2010, the split was 68 percent for AdSense content publishers and 51 percent for AdSense search partners. Google did not then reveal the revenue shares for additional AdSense products, including those for mobile applications, feeds, and games, because these products were "quickly evolving" and Google was "still learning about the costs associated with supporting them."

Second, competitors have not made the case that the government should mandate disclosure of the AdSense revenue calculation for these other products for which Google has not yet disclosed the revenue share. Competitors such as Bing are likely dealing with the same evolving pricing problems, and they would competitively benefit from disclosure of Google's pricing as it develops without having to disclose their own. Moreover, the competitors have not made the case that consumers would benefit from additional disclosure. Competitors might even raise their own revenue shares to match Google's, knowing that advertisers would not get a better share from Google, or they might undercut Google's pricing only marginally. Lack of disclosure could lead to steeper cuts or lower prices from competitors. The net effect is unclear and unproven. Google's competitors have not demonstrated why consumers would benefit from revealing these revenue shares—or the other proposed disclosure remedies already discussed.

D. CONTENT RULES: FAIR USE AND SHARING

Competitors propose two flawed intellectual-property-related remedies that would change, only for Google, the default intellectual-property law otherwise applicable to search engines. They propose forbidding Google from displaying excerpts of content from other sites, despite fair use, while requiring Google to let others crawl Google's content, despite the defaults about "trespass to chattels" and property law.

Unhappy with the constitutionally required fair use doctrine, Google's competitors propose in their FairSearch White Paper, without further detail: "[p]rohibiting Google's scraping and use of content from other sites without their permission."[143] The White Paper states that, "Google steals content from others and uses it to generate advertising revenue without paying compensation to the companies that have spent many years and many millions of dollars developing the content."[144] As an example of such “theft,” it highlights Google’s previous practice of displaying Yelp snippets in Google’s Places categories.[145]

This argument is simply about copyright and fair use. Even though the expansive copyright laws of the United States provide famously onerous remedies for “stealing” content, competitors have not brought a copyright claim, because such a claim would fail. Since its founding, Google has done what other search engines do: crawl the Web and display snippets and links of content to direct users to the world’s Web sites.[146] For linking, Google can link to content without violating a copyright holder’s exclusive reproduction or display rights, because links do not “reproduce” or “display” the content.[147] Thus, like all users, Google can link to content widely. Some competitors might prefer their links to show up differently in Google’s results (namely, higher on the results list). Copyright law, however, does not give anyone the right to determine whether their links are displayed in a specialized category of results or in the general search results.

For snippets, Google has and exercises an established fair-use right available for all search engines (and for the rest of us with First Amendment rights).[148] Fair use for using snippets for general searches is firmly established and rarely questioned in law.[149] If Google’s competitors oppose Google’s use of snippets in specialized searches, they could bring a copyright claim. Otherwise, fair use permits even a monopolist to quote snippets of content.[150] Permission is not required for fair use, so Google can choose how to use the content. If Google, unlike any of its competitors, were to be subject to a modified “fair-use” right for all the content it crawls and had to receive permission from all sites, it could not offer a search product without the enormous transaction costs of clearing rights for snippets on sites that already set technical controls to encourage crawling by search engines.[151]

We know of no antitrust-case ruling determining that even a dominant company’s exercise of fair-use rights creates an antitrust problem.[152] We know of none that accepts a remedy of changing fair-use rights for only one company. This is probably because, if fair use applies, neither policymakers nor antitrust courts can eliminate that right without raising serious constitutional concerns; the Supreme Court has held that fair use is rooted in the First Amendment itself.[153] Thus, courts cannot and apparently never have imposed an antitrust remedy of remaking the First Amendment's copyright fair-use doctrine.

Google's competitors seek to remove Google's right to control when others can crawl Google's own content. As a general rule, Web sites can determine whether their "library" of content is public or private by including code that forbids crawling.[154] A trespass property right, known as the trespass to chattels, backs this code, as companies' servers are chattels, or non-real-estate property.[155] If Google made its content crawlable, it would be subject to fair use. If, however, Google forbade crawling, it could assert a property right against outside crawlers.[156] A real-world analogy may be apt here: Google's competitors are arguing essentially that Google should be unable to make fair use of a published book available for all to see but that it must let everyone else into its own library to make photocopies of books in its own private collection.

Competitors claim that Google exercises its property right to deny competitors the right to crawl some sites, such as YouTube and Google Books.[157] Google denies some of these accusations, particularly regarding Bing and Yahoo! crawling YouTube.[158] We can assume, however, in this article, that Google's competitors are describing Google's practice factually and that this practice would create an antitrust problem under current law (despite our doubts).[159]

Even if these assumptions were correct, antitrust courts would still disfavor the remedy. First, mandating competitor access to Google Books and YouTube, despite property rights, would require a court to administer a duty to deal. As noted earlier, unless required by Congress for a particular industry, antitrust courts disfavor forced sharing with competitors, even for monopolists.[160] The crawling remedy would require Google to deal with competitors, thereby permitting competitors to access Google's servers. To implement this remedy, a court would need to determine which competitors receive access to Google's servers for YouTube and Google Books and which do not, and whether Google can charge these companies based on the expenses for additional servers or wear and tear. The court would also need to determine when the duty to deal would end, based on new innovations or increased competition. Courts disfavor such remedies partly because of such administrability problems.

Second, as with other duties to deal, a court cannot be sure that the remedy would benefit rather than undermine consumer welfare. Courts have been attentive to the notion that imposing a duty to deal in some circumstances, in some markets, can result in diminished innovation over the long-term for both a regulated company and its competitors. With access to YouTube and Google Books, competitors such as Microsoft and Yahoo! could free ride on Google's investments. Google invested billions of dollars in both acquiring YouTube and expanding it[161] and in scanning and indexing the world's libraries.[162] Microsoft, in contrast, has invested in other technologies, such as the Xbox, Facebook, and Skype, and it does not share those technologies with Google. Microsoft abandoned its own books project, determining that it would be unprofitable, but seeks to free ride on Google's investment.[163]

Moreover, Google's investments in YouTube and Google Books were not government-backed investments like those made in the past by government-sanctioned, regulated, monopoly companies. Rather, Google risked its capital in these investments. Generally, US economic policy encourages such capital risk through reward. According to its competitors, Google sought the reward of strengthening its search properties. As a matter of basic risk calculus, Google might be less likely to innovate and invest in such services if it had to share some of the benefits of these services with competing companies.[164] Not only would Google have less incentive to innovate if courts adopted the sharing remedy, but also, the free-riding companies could invest less in innovation as well, knowing that if Google beats them to the punch with new search innovations, Google would have to share them. For example, if Google expanded its legal and scholar search products to compete with Westlaw or LexisNexis, Bing would have access to crawl the products without making any innovations or investment. Because innovation is high risk, Bing's investors would not bear that risk. If Google innovated with ten new products but only one succeeded, Bing would be able to receive access to the successful product without bearing the cost of the nine unsuccessful products. Even if antitrust agencies or courts could calculate a formula requiring Bing to pay fairly for the cost of both the failed and successful innovations (*e.g.*, paying for both the failed Buzz and the successful YouTube), Bing would deny Google a disruptive advantage through innovation, as Bing would share in that innovation.[165] As a result, the proposed remedy would decrease innovation and therefore harm consumers.

E. NO BIDDING: ACQUISITIONS AND EXCLUSIVE AGREEMENTS

In a final category of proposed remedies, Google's competitors propose impeding Google's ability to compete for acquisitions and exclusive partnerships. Google's competitors suggest "[r]equiring prior notice to the government of all acquisitions by Google,"[166] even though Google makes more than one acquisition a week, generally acquiring relatively small companies.[167] The competitors also recommend "[p]rohibiting Google from entering into exclusive agreements that relate to any product in which Google is dominant, including search and paid search advertising."[168] Finally, the competitors also vaguely seek to limit Google's ability to use its "war chest" generally.[169] While unclear, this proposal suggests limits on acquisitions and exclusive deals.

The first of these remedies, notice of acquisitions, provides little to no concrete economic value to consumers or administrative value to the government, although it might benefit competitors. Google already must notify the government of acquisitions large enough to meet the thresholds set forth for compliance with the Hart-Scott-Rodino Act.[170] When Google acquires a company too small to require notification, both Google and the acquired company generally issue a press release.[171] Both Wikipedia and AOL's popular technology blog, TechCrunch, manage to list Google acquisitions.[172] (They also manage equally long lists of acquisitions by Microsoft and others.)[173] Google's complaining competitors have not even suggested that Google has failed to announce acquisitions or that failing to announce acquisitions has caused any consumer harm.

Existing law already permits competitors to challenge acquisitions, and antitrust agencies frequently scrutinize mergers that fall below the Hart-Scott-Rodino thresholds for transaction size.[174]

The second remedy, banning exclusive partnerships, is somewhat unclear but seems to refer to deals that would make Google search the default (or perhaps exclusive) search engine on a Web browser or on a device. Google has entered into partnerships to be the default (although not the exclusive) provider of searches for the Mozilla Firefox browser and the iPhone's Safari browser.[175] Microsoft's Bing search engine leads Google in exclusive deals for new personal computers, such as Dell computers, and for browsers, as the default browser for most computers running Windows is Microsoft's Internet Explorer, whose default search engine is Bing.[176] These deals appear to drive traffic: Internet Explorer users use Bing far more often than they use other search engines.[177]

This proposed remedy would likely harm consumers, device makers, and browser makers. If the proposed remedy were to succeed in forbidding Google from competing to be the default provider on browsers and devices, then Mozilla, Apple, and other potential partners would receive less money in these partnerships. Without Google to bid on the partnerships, there would be fewer bidders; and with fewer bidders, there would likely be lower clearing prices for defaults. In an auction, the winning bid usually matches (or barely exceeds) the willingness to pay of the bidder with the *second-highest* willingness.[178] If Company A would be willing to bid $100, Company B $10, and Company C $1, then Company A would not need to bid its full willingness to pay of $100. Company A would need only bid $11—enough to beat out Company B. If Company A were eliminated from the bidding, however, then Company B would not win the auction with a bid of $10. Company B could bid merely $2, enough to edge out Company C. With searches, the leading bidders currently are usually Microsoft, Google, and Yahoo![179] If Google were removed from bidding, then the main bidders remaining would be Microsoft and Yahoo!. With Google gone from the bidding, Microsoft would be able to purchase such partnerships for a price that would not track its own willingness to pay for a particular default-search partnership, but instead, one tracking Yahoo's, which might be far lower than Google's or Microsoft's.

While this outcome would benefit Microsoft (or Yahoo!), Google's competitors have not demonstrated that it would benefit consumers or others in the Internet ecosystem. These proposed remedies might enable Microsoft's Bing to partner as the default search engine on more properties, perhaps increasing traffic to Bing at a lower price.[180] As a result, however, these proposed remedies would save Microsoft (or Yahoo!) a lot of money while depriving Mozilla and Apple of both the additional revenue that they would otherwise receive if more companies could compete for the partnerships and the choice to provide, as the default, Google's more popular search engine. Indeed, generally, the highest bidder is presumed to provide the most value to consumers.

Google's competitors imply, however, that Google is merely overpaying for these partnerships, doing so to block competitors, and able to do so because of its "war chest." Microsoft has its own war chest, however, and a larger market cap, making billions of dollars a year from its long-dominant Windows and Office products, among others.[181] Microsoft can afford to pay whatever Google can afford to pay to compete with Google from a war-chest perspective. With the proposed remedy, however, Microsoft would simply be enabled to spend less from its own war chest. The consumer benefits are unclear and appear to be minimal or nonexistent.

As a result, both an acquisition notification (beyond current law) and a ban on exclusive/default deals would appear to provide little-to-no consumer benefits while instead resulting in harm to consumers, browser companies, and device makers.

III. CONCLUSION

Google's complaining competitors have aggressively bet on an antitrust inquiry into Google's "search bias" and have proposed more than a dozen remedies to address this alleged problem. Google's competitors have not spelled out the details of all of these remedies, but an evaluation of them suggests that they would cause more harm than good for consumers, for competition generally, and for high-tech innovations. Indeed, antitrust courts specifically disfavor many of the proposed remedies, such as those that require detailed day-to-day regulation usually implemented by a regulatory agency, those that impose duties to deal with competitors, and those that raise constitutional problems.

Because Google's complaining competitors have had their shot at putting forth their strongest proposed remedies, the FTC should consider whether these remedies are even worth pursuing. The weakness of these remedies suggests that the competitors' complaints are not only irremediable, but also, lack merit under US antitrust laws. As a writer at the nation's top technology blog wrote**:**

> Even if Google is abusing its monopoly powers, then what? Any remedies imposed on Google could be worse for consumers than the uncertain consequences of keeping Google unchecked. If Google had to pass every change to its search engine through an antitrust filter that could really screw up search, something which most of us depend on every single day.[182]

In short, the FTC has better uses for its scarce resources than pursuing an inquiry or investigation that would merely raise the cost of one rival, Google, for the benefit of other rivals that have proposed unworkable and detrimental remedies for their novel theories of antitrust harm that is effected through "search bias."

NOTES

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[1] FairSearch.org, "About FairSearch.com," *www.fairsearch.org/about-fairsearch/*; "Member Directory," *www.i-comp.org/en_us/members/members/member_directory*.

[2] FairSearch, "Google's Transformation from Gateway to Gate Keeper: How Google's Exclusionary and Anticompetitive Conduct Restricts Innovation and Deceives Consumers," FairSearch 41 (2011), *available at www.fairsearch.org/wp-content/uploads/2011/11/Googles-Transformation-from-Gateway-to-Gatekeeper-Edited.pdf* [hereinafter FairSearch Report]; ICOMP, "Initiative for a Competitive Online Market Place, Google Under the Antitrust Microscope," ICOMP.com 32-38 (2011), *www.i-comp.org/resources/view/1224/file/Google Under the Antitrust Microscope [hereinafter* ICOMP Report]. FairSearch's paper proposed six remedies—but devoted a page to listing them and provided no further detail. The European paper spent seven pages on remedies, but listed over half a dozen distinct remedies, with varying levels of vagueness.

[3] *See* Ben Edelman, "Bias in Search Results?: Diagnosis and Response," 7 *Indian J. Law & Tech*. 16 (2011), *available at www.nls.ac.in/ojs-2.2.3/index.php/IJLT/article/viewFile/92/72*.

[4] *See* "The Power of Google: Serving Consumers or Threatening Competition?: Hearings Before the Senate Subcommittee on Antitrust, Competition Policy and Consumer Rights," 112th Cong. (2011), *available at www.judiciary.senate.gov/hearings/hearing.cfm?id=3d9031b47812de2592c3baeba64d93cb [hereinafter* Google Hearing].

[5] Erick Schonfeld, "Google and Monopoly Theater," *TechCrunch*, Sept. 25, 2011.

[6] *See* Google Hearing, *supra* note 4, at 147:30 (Statement of Susan A. Creighton) ("Because of the very real risk of deterring innovation and other beneficial activities, extraordinary care must be taken to ensure that government intervention in the market is truly essential. Otherwise such action is much more likely to harm consumers than to help them.").

[7] Thomas O. Barnett, Assistant Attorney General, Antitrust Div. U.S. Dep't of Justice, Presentation at the American Bar Association Conference on Monopolization Remedies: Section 2 Remedies: What to Do after Catching the Tiger by the Tail (June 4, 2008), *available at www.justice.gov/atr/public/speeches/233884.htm* ("Even in circumstances where competitive harm theoretically could occur, the difficulty of designing a proper remedy may reveal that antitrust litigation cannot effectively remedy that harm."). Microsoft's head antitrust lawyer has made a similar argument. "Remarks of David A. Heiner, Vice Pres. and Dep. Gen. Counsel for Antitrust, Microsoft Corp., FTC and DOJ: Hearings on Sec. 2 of the Sherman Act: Single-Firm Conduct as Related to Competition," Mar. 28, 2007 at 4, *available at www.ftc.gov/os/sectiontwohearings/docs/070328Heiner_Presentation.pdf.* ("[I]t is important that that [antitrust remedies] be fully thought through before liability proceedings are commenced.").

[8] FairSearch's counsel has noted these incentives. *See* Thomas O. Barnett, "Interoperability Between Antitrust and Intellectual Property," *George Mason University School of Law*, Sept. 13, 2008 ("[I]f the government is too willing to step in as a regulator, rivals will devote their resources to legal challenges rather than business innovation. . . . [S]eeking government help to grab a share of your competitor's profit is likely to be low cost and low risk, whereas innovating on your own is a risky, expensive proposition."). Professor Eric Goldman has observed the same incentives, noting that, in the search bias debate, "[I]t has become almost impossible to distinguish legitimate discourse from economic rent-seeking" by competitors." Eric Goldman, "Revisiting Search Engine Bias," 38 *William Mitchell L. Rev.* 96, 109 (2011).

[9] Miguel Helft, "Google Confirms F.T.C. Antitrust Inquiry," *NY Times Bits Blog*, June 24, 2011.

[10] *See* Google Hearing, *supra* note 4.

[11] Letter from Herb Kohl, Chairman, Subcommittee on Antitrust, Competition Policy and Consumer Rights, to Jonathan Leibowitz, Chairman, FTC, Dec. 19, 2011, *available at www.kohl.senate.gov/newsroom/upload/Google-FTC-Letter-12-19-11.pdf.*

[12] James Grimmelmann, "Some Skepticism About Search Neutrality," *in The Next Digital Decade: Essays on the Future of the Internet* 435 (Berin Szoka & Adam Marcus, eds., 2010); Frank Pasquale, "Dominant Search Engines: An Essential Cultural & Political Facility," *in The Next Digital Decade: Essays on the Future of the Internet* 401 (Berin Szoka & Adam Marcus, eds., 2010); Joshua D. Wright, "Retrograde Antitrust Analysis Is No Fit for Google," ACSBlog, Oct. 3, 2011, *www.acslaw.org/acsblog/retrograde-antitrust-analysis-is-no-fit-for-google*; Benjamin G. Edelman, "*Finding and Preventing Biased Results*," ACSBlog, Oct. 6, 2011, *www.acslaw.org/acsblog/finding-and-preventing-biased-results.*

[13] John Cook, "Google Holds Steady with 65 Percent of U.S. Search Queries," *GeekWire*, Oct. 12, 2011.

[14] Michael Liedtke, "Pew Report Finds Facebook Influences What News Gets Read Online," *Huffington Post*, May 9, 2011.

[15] Google Hearing, *supra* note 4, at 149:00 and 155:00 (statement of Susan A. Creighton).

[16] *See* Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962) ("It is competition, not competitors, which the Act protects."). Thomas O. Barnett, Assistant Attorney General, Antitrust Div., U.S. Dep't of Justice, Presentation to the Lisbon Conference on Competition Law and Economics (Nov. 6,

2007), *available at www.justice.gov/atr/public/speeches/227755.htm* ("[T]he law protects consumer welfare by protecting competition, not individual competitors.").

[17] *See* Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 608-11 (1985).

[18] City of Mishawaka v. American Elec. Power Co., 616 F.2d 976, 986 (7th Cir. 1980), *cert. denied*, 449 U.S. 1096 (1981). *But see*, Daniel Crane, "Monopoly Broth Makes Bad Soup," 76 *Antitrust L. J.* 663 (on problems with certain applications of the monopoly broth doctrine).

[19] Tim Bradshaw, "TripAdvisor Claims Google Pushing Services Harder," *Financial Times*, Feb. 21, 2012.

[20] Carsten Cumbrowski, "New Yahoo! (Universal) Search Launched," *Reve News*, Oct. 2, 2007; Eli Goodman, "Universal Search: Not All Blends Are Created Equal," *Search Engine Watch*, Oct. 11, 2010.

[21] Marvin Ammori, "Some Thoughts on Google Search, Plus Your World," *Marvin Ammori & Friends on Technology Policy*, Jan. 11, 2012.

[22] J.R. Raphael, "Microsoft's Bing Ad Claims to Terminate 'Search Overload,'" *PC World*, June 3, 2009.

[23] Ben Grimes, "The Evolution of Search in Six Minutes," *The Official Google Blog*, Nov. 28, 2011, *www.googleblog.blogspot.com/2011/11/evolution-of-search-in-six-minutes.html.*

[24] Screenshot, *i1259.photobucket.com/albums/ii559/PelicanAG/YahooUniversalSearch.jpg*; Screenshot, *i1259.photobucket.com/albums/ii559/PelicanAG/BingUniversalSearch.jpg.*

[25] Joshua D. Wright, "Defining and Measuring Search Bias: Some Preliminary Evidence," George Mason Law & Economics Research Paper no. 12-14, Nov. 2011.

[26] Lucian Parfeni, "Bit.ly Debuts Future Predicting Real-Time Search Technology," *Softpedia*, Oct. 11, 2011.

[27] Damon Darlin, "An Engine's Tall Order: Streamline the Search," *NY Times,* May 7, 2011. *See also*, Rich Skrenta, "Blekko's not afraid of Google, why is Washington*?" Skrentablog*, Sept. 20, 2011 ("But we don't need federal intervention to level the playing field with Google.").

[28] Brad McCarty, "StumbleUpon: 800 million monthly stumbles can't be wrong," *The Next Web Insider*, Apr. 4, 2011.

[29] Francis Bea, "DuckDuckGo: An Introduction to the Anonymous Search Engine," *Digital Trends*, Feb. 25, 2012; Danny Goodwin, "DuckDuckGo Hits New Milestone: 1 Million Searches," *Search Engine Watch*, Feb. 16, 2012.

[30] Adam Satariano & Douglas MacMillan, "Apple Said to Pay About $50 Million for Application-Search Startup Chomp," *Bloomberg*, Feb. 24, 2012.

[31] BigOak Blog, "5 Secret Search Engines Way Better Than Google," *BigOak Blog*, Nov. 21, 2011.

[32] Lance Ulanoff, "Google Knowledge Graph Could Change Search Forever," *Mashable*, Feb. 13, 2012.

[33] Ian Wishart, "Searching questions for EU as small firm takes on giant," *EuropeanVoice.com*, Jan. 20, 2011, *www.europeanvoice.com/article/imported/searching-questions-for-eu-as-small-firm-takes-on-giant/69988.aspx*.

[34] "Facts About Google and Competition," *www.google.com/competition/*.

[35] Oren Bracha & Frank Pasquale, "Federal Search Commission? Access, Fairness, and Accountability in the Law of Search*,"* 93 *Cornell L. Rev*. 1149 (2007). Telecommunications and cable companies, such as AT&T, Comcast, and Time Warner Cable, proposed undefined "search neutrality" mandates in unrelated FCC dockets regarding network neutrality. *See* Nate Anderson, "Search neutrality? How Google became a "neutrality" target," *Ars Technica*, Apr. 29, 2010. *See also,* "Comments of Time Warner Cable Inc.," GN Docket No. 09-191 (filed Jan. 14, 2010), "Comments of AT&T Inc.," GN Docket No. 09-191 (filed Jan. 14, 2010), and "Comments of Comcast Corporation," GN Docket No. 09-191 (filed Jan. 14, 2010): "Hearings Before the Federal Trade Commission in the Matter of Preserving the Open Internet: Broadband Industry Practices."

[36] Frank Pasquale, "Dominant Search Engines: An Essential Cultural & Political Facility," *in The Next Digital Decade: Essays on the Future of the Internet* 401, 415 (Berin Szoka & Adam Marcus, eds., 2010).

[37] *See* Eric Goldman, "Search Engine Bias and the Demise of Search Engine Utopianism," 8 *Yale J.L. & Tech*. 188 (2006); Grimmelmann, *supra* note 12; Daniel A. Crane, "Search Neutrality as an Antitrust Principle," University of Michigan Law School, Law & Economics Working Paper 40, *available at bit.ly/yBfyor*; *Wright*, *supra* note 25.

[38] *See* Google Hearing, *supra* note 4(Statement of Jeremy Stoppelman, CEO, Yelp); Benjamin Edelman, "Hard-Coding Bias in Google 'Algorithmic' Search Results," Nov. 15, 2010, *www.benedelman.org/hardcoding/*; FairSearch Report, *supra* note 2, at 42.

[39] *See* US DOJ, "Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act 143," (2008; withdrawn May 11, 2009) (hereinafter DOJ Section 2 Report, withdrawn.

[40] *See* John E. Lopatka & William Page, "Devising a Microsoft Remedy That Serves Consumers," 9 *Geo Mason L. Rev*. 691, 700 (2001).

[41] *See* DOJ Section 2 Report, withdrawn, *supra* note 39**Error! Bookmark not defined.**, at xi.

[42] *Id.* at 143.

[43] *See* Philip Marsden & Spencer Waller, "Antitrust Marathon Part IV," 20 *Loyola Consumer L. Rev*. 197, 210 (2008) (quoting Bert Foer).

[44] *Id*.

[45] *Id*. at 215 ("I would say most of the regulatory remedies, access remedies in particular that have been tried at the Federal Trade Commission have not worked. We didn't know enough about them. We didn't know enough about remedy. There is no book on remedy. . . . I know in my own case, I have worked on a whole bunch of remedies with total failures, and they were total failures because we didn't understand enough about the industry when we designed the remedy.") (quoting Ken Davidson).

[46] "The agencies make this point in discussing merger remedies, but the same principle applies in other antitrust cases." *U.S. Dept. of Justice, Antitrust Division Policy Guide to Merger Remedies* 2, (2011).

[47] *See*, *e.g.*, David Warsh, *Knowledge and the Wealth of Nations: A Story of Economic Discovery*, (2006); Richard Gilbert & Willard K. Tom, "Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines Five Years Later," UC Berkeley, Center for Competition Policy Working Paper no. CP-C01-20 (2001) *available at escholarship.org/uc/item/8zv6b8c5*. *See also* Richard J. Gilbert, "Competition and Innovation," (2007), *escholarship.org/uc/item/9xh5p5p9*.

[48] Geoffrey A. Manne & Joshua D. Wright, "Google and the Limits of Antitrust: The Case Against Google," 34 *Harv. J. L. & Pol'y* 171, 187 (2011).

[49] Classic works on comparative institutional analysis include Neil K. Komesar, *Imperfect Alternatives: Choosing Institutions in Law, Economics, and Public Policy,* (1997); Ronald Coase, "The Problem of Social Cost, 3," *J.L. & Econ.* 1 (1960).

[50] Phillip E. Areeda & Herbert Hovenkamp *et al*., "Antitrust Law (21 volumes, annual supplements, 1978-2011)." *See also* Daniel A. Crane, "Antitrust Modesty," *105 Mich. L. Rev.* 1193, 1193 (2007) (quoting Justice Stephen Breyer suggesting that the treatise is more influential than circuit court opinions.).

[51] *See* Herbert Hovenkamp, *The Antitrust Enterprise: Principle and Execution,* 47 (2005).

[52] *See*, *e.g.*, Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 405-07 (2004); Thomas A. Lambert, "The Roberts Court and the Limits of Antitrust," 52 *B.C. L. Rev.* 871, 874-79 (2011); Frank H. Easterbrook, "The Limits of Antitrust," 63 *Tex. L. Rev. 1* (1984) (suggesting that error costs deterring beneficial conduct are more costly than the error costs of overlooking anticompetitive conduct).

[53] Linkline, 555 U.S. at 453 (quoting Town of Concord v. Boston Edison Co., 915 F.2d 17, 25, 1st Cir. 1990, Breyer, C.J.).

[54] Trinko, 540 U.S. at 415 (quoting Phillip E. Areeda, "Essential Facilities: An Epithet in Need of Limiting Principles," 58 *Antitrust L.J.* 841, 853 (1989)).

[55] Pacific Bell Telephone Co. v. Linkline Communications, Inc., 555 U.S. 438, 449 (2009). In price squeezes, a competitor raises wholesale prices to competitors while cutting its retail prices to consumers. *Id.* at 452-53.

[56] For the main academic argument, *see* Oren Bracha & Frank Pasquale, "Federal Search Commission? Access, Fairness, and Accountability in the Law of Search," 93 *Cornell L. Rev.* 1149 (2008). *See also* Frank Pasquale, "Dominant Search Engines: An Essential Cultural & Political Facility," *in The Next Digital Decade: Essays on the Future of the Internet* 402 (Berin Szoka & Adam Marcus, eds., 2010) (proposing a government funded search engine instead).

[57] *See* FairSearch Report, *supra* note 2, at 41.

[58] *See* ICOMP Report, *supra* note 2**Error! Bookmark not defined.**, at 36 ("A remedy in this context should prevent Google from taking into account the following inappropriate factors in relation to search rankings: whether or not the website or service in question is offered by Google, a firm that is a subsidiary or a business unit of Google, or one of Google's business partners; whether the firm offers or promotes competing products to those of Google; or whether the firm has brought a complaint against Google. Similarly, Google should face an absolute ban from retaliation against any product, service, website or firm.").

[59] *See id*. at 34-35. *See also,* Edelman, *supra* note 3, at 27-28.

[60] Schonfeld, *supra* note 5. ("Senator Al Franken suggested the possibility of a voluntary technical committee to provide oversight, to which Google's outside lawyer Susan Creighton responded (quite correctly): 'Google already changes its algorithm 500 times a year. I think a technical committee would be too slow to keep up with changes in the market.'").

[61] Linkline, 555 U.S. at 452-53.

[62] *See* Kinderstart.com, LLC v. Google, Inc., Case No. C 06-2057 JF (RS), 2007 WL 831806 (N.D. Ca., Mar. 16, 2007); Search King, Inc. v. Google Technology, Inc., Case No. Civ-02-1457-M, 2003 WL 21464568 (W.D. Okla., Jan. 13, 2003).

[63] Matt Cutts, "Ten Recent Algorithm Changes," *Inside Search*, Nov. 14, 2011, *insidesearch.blogspot.com/2011/11/ten-recent-algorithm-changes.html.*

[64] Eric Goldman, "Search Engine Bias & the Demise of Search Engine Utopianism," *in The Next Digital Decade: Essays on the Future of the Internet* 461 (Berin Szoka & Adam Marcus, eds., 2010); James Grimmelmann, "Some Skepticism About Search Neutrality," *in The Next Digital Decade: Essays on the Future of the Internet* 435, 438 (Berin Szoka & Adam Marcus, eds., 2010).

[65] *See* Schonfeld, *supra* note 5.

[66] *See* Search Neutrality, *www.searchneutrality.org (last visited Feb. 27, 2012).*

[67] Claire Compton, "Google Responds to EC Anti-Trust Investigation," *Prague Post*, Dec. 8, 2010.

[68] Chris Lake, "Foundem vs Google: A Case Study in SEO Fail," *EConsultancy,* Aug. 18 2009.

[69] *Id. See also,* Chris Lake, "Foundem vs Google Redux," *EConsultancy*, Jan. 5, 2010.

[70] Benjamin Edelman & Benjamin Lockwood, "Measuring Bias in 'Organic' Web Search," at Appendix 1, *www.benedelman.org/searchbias/appendix1.html (last visited Feb. 27, 2012).*

[71] Pacific Bell Telephone Co. v. Linkline Communications, Inc., 555 U.S. 438, 453 (2009) (quoting Town of Concord v. Boston Edison Co., 915 F.2d 17, 22, 1st Cir. 1990, Breyer, C.J.).

[72] David Segal, "The Dirty Little Secrets of Search", *NY Times*, Feb. 12, 2011.

[73] FairSearch Report, *supra* note 2, at 27-28.

[74] Edelman, *supra* note 3, at 27 (quoting 14 C.F.R. Part 255).

[75] *Id.*

[76] Josh Wright, "Searching for Antitrust Remedies, Part II," *Truth on the Market*, July 13, 2011, *truthonthemarket.com/2011/07/13/searching-for-antitrust-remedies-part-ii/.*

[77] Trinko, 540 U.S. at 415 (quoting Phillip E. Areeda, "Essential Facilities: An Epithet in Need of Limiting Principles," 58 *Antitrust L.J.* 841, 853 (1989)).

[78] Computer Reservation System (CRS) Regulations, 69 Fed. Reg. 976 (DOT, Jan. 7, 2004).

[79] United Air Lines v. CAB, 766 F.2d 1107, 1111 (7th Cir. 1985) (affirming Airline Computer Reservation Systems: Display of Information, 49 Fed. Reg. 32, 540 (Civil Aeronautics Board Aug. 15, 1984)).

[80] For a discussion of these cases, see Cindy R. Alexander & Yoon-Ho Alex Lee, "The Economics of Regulating Reform: Termination of Airline Computer Reservation System Rules," 21 *Yale J. on Reg.* 369, 384-85 (2004).

[81] *See* Edelman, *supra* note 3, at 27-28.

[82] United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

[83] William H. Page & Seldon J. Childers, "Software Development as an Antitrust Remedy: Lessons from the Enforcement of the Microsoft Communications Protocol Licensing Requirement," 14 *Mich. Telecomm. & Tech. L. Rev.* 77, 98, 107-110, 133-136 (2007).

[84] *Id.* at 108-109.

[85] *Id.* at 98.

[86] Final Judgment, United States v. Microsoft Corp., No. 98-1232 (CKK), 2002 WL 31654530 (D.D.C. Nov. 12, 2002).

[87] New York v. Microsoft, 231 F. Supp. 2d 203, 253-257 (D.D.C. 2002).

[88] *See* Heiner, *supra* note 8, at 4-5.

[89] *Id.*

[90] Joint Motion for a Supplemental Protective Order and Supporting Memorandum of Points and Authorities, United States v. Microsoft Corp., No. 98-1232(CKK) (D.D.C. Aug. 18, 2011). *See also,* David Meyer, "Microsoft and US Sue for Return of Antitrust Documents," *ZDNet UK*, Aug. 22, 2011.

[91] *See* Page & Childers, *supra* note 83, at 133-36.

[92] *See, e.g.*, Daniel F. Spulber, "Unlocking Technology: Antitrust and Innovation," 4 *J. Competition L. & Econ.* 915, 946-47 (2008) ("There are over 100 national and international standard-setting bodies in the ICTE [information and communications technology and selected electronics] industries.").

[93] Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 605 n. 32 ("'Thus, "exclusionary" comprehends at the most behavior that not only (1) tends to impair the opportunity of rivals, but also (2) either does not further competition on the merits or does so in an unnecessarily restrictive way.'") (quoting 3 Phillip E. Areeda & Donald F. Turner, *Antitrust Law* ¶ 626b, at 78 (1978)).

[94] *See* Edelman, *supra* note 3, at 29-30.

[95] *See* FairSearch Report, *supra* note 2, at 41.

[96] There was some criticism of Google's Search Plus Your World, which was announced after Google's competitors proposed its remedies. *See* Nick Bilton, "Google's Social Move Attracts Critics," *NY Times Bits Blog,* Jan. 10, 2012.

[97] Todd Wasserman, *"'Facebook' Is the Most-Searched Term of 2011[STUDY]," Mashable*, Dec. 22, 2011 (others in the top ten included Yahoo, and MapQuest).

[98] We can assume here, for the sake of argument, that the way Google presents search results by news or local results is a "product" under antitrust law separate from a general search. We could also view Google News as merely a way to categorize and display *some* search results among the many search results presented on a page, more a design choice than a separate product.

[99] *See, e.g.*, Complaint, United States v. Microsoft Corp, Civil Action No 98-1232 (D.D.C. filed May 18, 1998) ¶ 103-23.

[100] Charlotte Kiang, "Google+ Launch Resuscitates Antitrust Concerns", *PolicyMic,* July 27, 2011; Qi Guo *et al.*, "Why Searchers Switch: Understanding and Predicting Engine Switching Rationales," in *Proceedings of SIGIR* 335 (2011). *See also*, *supra* notes 26- 31 (and accompanying text) (discussing rival search engines).

[101] *See, e.g.*, Steve Jobs, 2007 iPhone Presentation (Part 1 of 2), *YouTube*, *youtube/6uW-E496FXg*; Joseph Volpe, "Meet the New iPhone 4S," *Engadget*, Oct. 4, 2011.

[102] *See, e.g.*, "The Evolution of Facebook Features," *available at www.grosocial.com/blogposts/Evolution-Facebook-Features*.

[103] *See* Victoria Barret, "Dropbox: The Inside Story on Tech's Hottest Startup," *Forbes*, Oct. 18, 2011.

[104] Yane Svetiev, "Antitrust Governance: The New Wave of Antitrust," 38 *Loy. U. Chi. L.J.* 593, 626 (2007) ("Courts defer to the product development decisions, even those of a dominant firm, not because

they are antiantitrust, but because, in the absence of doctrinal guidance, they do not have the tools with which to perform the balancing task effectively or legitimately, in a way which would provide actors with a clear guide to future compliance.”).

[105] Verne G. Kopytoff, “Microsoft Posts a 30% Increase in Profit, but Sales of Windows Are Weak,” *NY Times*, July 21, 2011; Peter Bright, “A Look Ahead: 2012 is Microsoft’s Turning Point,” *Ars Technica*, Dec. 29, 2011.

[106] *See* Farhad Manjoo, “The Great Tech War Of 2012,” *Fast Company*, Nov. 2011. *See also* Miguel Helft & Jessi Hempel, “Facebook vs. Google: The Battle for the Future of the Web,” *CNN Money*, Nov. 29, 2011. For example, even though known for book sales, Amazon has evolved to “Own[] the Web in More Ways Than You Think,” according to *Wired* magazine. Steven Levy, “Jeff Bezos Owns the Web in More Ways Than You Think,” *Wired*, Nov. 13, 2011. Amazon’s Fire competes with Apple in the tablet market; it’s Kindle with Barnes & Noble’s Nook; it’s UnBox with Netflix; it’s Amazon MP3 with iTunes; it’s Checkout with Paypal; it’s e-commerce offerings with Buy.com, Walmart.com, and eBay; it’s enterprise cloud computing with Rackspace and others; and it’s consumer cloud computing with Dropbox and iCloud. Amazon may even be launching a smartphone to compete with Apple’s iPhone and the devices powered by Google’s Android operating system. John Cook, “Infographic: Amazon versus Apple, PayPal, Dropbox and the rest of the tech world,” *GeekWire*, Dec. 23, 2011; Agustino Fontevecchia, “Jeff Bezos Eyeing Apple’s Lunch? Amazon Smartphone in 2012, Citi Says,” *Forbes*, Nov. 17, 2011.

[107] *See* Manjoo, *supra* note 106.

[108] Even Microsoft’s advertisements emphasize this point. *See* “Bing: Decide to Discover Downtown,” *YouTube*, *youtube/8aN5UPyseBw*.

[109] *See, e.g.*, Alexia Tsotsis, “The d.Fund Founder Enrique Allen: Innovation Will Take a Different Breed Of Designer,” *TechCrunch*, Apr. 9, 2011; Meghan Kelly, “Hipmunk Launches Mobile App for Booking Hotels,” *MobileBeat*, Jan. 9, 2012.

[110] *See* Tom Spring, “Bing vs. Google vs. Yahoo: Feature Smackdown,” *PC World*, May 29, 2009.

[111] *See* FairSearch Report, *supra* note 2, at 41.

[112] *Id*. at 28.

[113] *See* ICOMP Report, *supra* note 2, at 36.

[114] *Id*.

[115] *See, e.g.*, Amit Singhal, “Search Quality Highlights: 40 Changes for February,” *Inside Search*, Feb. 27, 2012, *insidesearch.blogspot.com/2012/02/search-quality-highlights-40-changes.html*; Pandu Nayak, “*30 Search Quality Highlights (with Codenames!*)*: December*,” *Inside Search*, Jan. 5, 2012, *insidesearch.blogspot.com/2012/01/30-search-quality-highlights-with.html*; Matt Cutts, “Ten Recent Algorithm Changes,” *Inside Search*, Nov. 14, 2011, *insidesearch.blogspot.com/2011/11/ten-recent-algorithm-changes.html.*

[116] “Facts About Google and Competition,” *supra* note 34.

[117] See Danny Sullivan, “Google & Bing Have Whitelists – ‘Exception Lists’ – For Some Algorithm Signals,” *Search Engine Land*, Mar. 10, 2011(hereinafter Exception Lists).

[118] *See* Google Hearing, *supra* note 4, at 59:40 (Eric Schmidt stating, “I can assure you we have not cooked anything.”); “Facts About Google and Competition,” *supra* note 34.

[119] Edelman & Lockwood, *supra* note 70.

[120] Josh Wright, “Extending & Rebutting Edelman & Lockwood on Search Bias,” *Truth on the Market*, Nov. 9, 2011, *truthonthemarket.com/2011/11/09/extending-rebutting-edelman-lockwood-on-search-bias/*. *See also*, Wright, *supra* note 25.

[121] *See* Exception Lists, *supra* note 17.

[122] *See* Google Webmaster Central, *available at www.google.com/webmasters/*.

[123] *See* “Facts About Google and Competition,” *supra* note 34.

[124] Marissa Mayer, “Do Not Neutralize the Web’s Endless Search”, *Financial Times*, July 14, 2010.

[125] *See* Screenshot, *i1259.photobucket.com/albums/ii559/PelicanAG/TransparencySearch1.jpg.*

[126] *See* Screenshot, *i1259.photobucket.com/albums/ii559/PelicanAG/TransparencySearch2.jpg.*

[127] *See* ICOMP Report, *supra* note 2, at 36.

[128] "AdWords Help: Landing Page and Site Quality Guidelines," *Google.com*, *support.google.com/adwords/bin/answer.py?hl=en&answer=46675*.

[129] *See* FairSearch Report, *supra* note 2, at 32.

[130] "AdWords Help: Landing Page and Site Quality Guidelines," *Google.com*, , *support.google.com/adwords/bin/answer.py?hl=en&answer=46675*.

[131] *Id*.

[132] "AdWords Help: What Is the AdWords "Quality Score" and How Is It Calculated?," *Google.com*, *support.google.com/adwords/bin/answer.py?hl=en&answer=10215 (hereinafter Quality Score).*

[133] "AdWords Help: Tips for Success," *Google.com support.google.com/adwords/bin/static.py?hl=en&page=tips.html#optimize (hereinafter Tips).*

[134] "Advertising Policies Help: Overview," *Google.com*, *support.google.com/adwordspolicy/bin/static.py?hl=en&page=guide.cs&guide=1316546*.

[135] "Quality Score," *supra* note 132.

[136] "AdWords Help: Tips for Success," *supra* note 133; "AdWords Help: Optimization Center," *Google.com*, *support.google.com/adwords/bin/topic.py?hl=en&topic=21804&from=guide.*

[137] "AdWords Help (Overview)," *Google.com, support.google.com/adwords/?hl=en*.

[138] Users even post irrelevant advertisements that they find annoying. Fred Benenson, "Really NY Times? Its [sic] really frustrating that I can't even pay to make these ads go away," *Flickr, www.flickr.com/photos/fcb/6786879392/. See also*, "Dear Google and Facebook: Get Active," *Four Elements Media Blog*, Mar. 1, 2012.

[139] "Google Ads: Publisher: Publisher Solutions," *Google.com), www.google.com/intl/en/ads/publisher/solutions.html#subid=ww-en-et-adsense-pubsollink.*

[140] *See* FairSearch Report, *supra* note 2, at 36.

[141] The FairSearch Report was released October 11, 2011, and the ICOMP Report was released October 20, 2011, over a year after Google's disclosure.

[142] Neil Mohan, "The AdSense Revenue Share," *Google Inside AdSense Blog*, May 24, 2010, *adsense.blogspot.com/2010/05/adsense-revenue-share.html.*

[143] FairSearch Report, *supra* note 2, at 41.

[144] *Id*. at 38.

[145] *Id*. at 37.

[146] Ríona MacNamara, "The Anatomy of a Search Result," *Webmaster Central Blog*, Nov. 26, 2007, *googlewebmastercentral.blogspot.com/2007/11/anatomy-of-search-result.html.*

[147] Ticketmaster Corp. v. Tickets.com Inc., 54 USPQ2d 1344 (C.D. Cal. 2000).

[148] Field v. Google, Inc., 412 F. Supp. 2d 1106 (D. Nev. 2006).

[149] *See id* at 1117-24.

[150] Using snippets in specialized searches would likely be fair use because the use is so similar to use in general searches. The test balances the (1) purpose and character of the use (nearly identical for general search and specialized search), (2) the nature of the copyrighted work (identical), (3) the amount and substantiality of the portion taken (identical or nearly identical), and (4) and the effect of the use upon the potential market. The effect on the potential market is not identical, however, according to Yelp and some news organizations for Google Places and Google News. They claim that the market effect is more harmful for Google's specialized searches; however, the competitors have provided no evidence of an effect on the market for their copyrighted content to support this remedy. Even if they did, and if the fourth factor weighed against Google, the other three factors weigh strongly in favor of Google. Thus, using snippets in specialized searches is likely fair use. *See*, Kelly v. Arriba Soft Corp., 336 F. 3d 811 (9th Cir. 2003); Perfect 10, Inc. v. Amazon.com, Inc., et al., 487 F. 3d 701 (9th Cir. 2007).

[151] *See* Field v. Google, Inc., note 150 at 1112.

[152] Antitrust courts have done the opposite: Rather than expand the copyrights of other companies beyond traditional contours, they have *limited* the exclusive copyrights of dominant players. *See* Associated Press v. United States, 326 U.S. 1 (1945). Such a remedy better balances First Amendment concerns and furthers wider dissemination of information. *See id.* at 20.

[153] Fair use is constitutionally required as a judicial means to mediate the Constitution's Copyright Clause and the First Amendment. *See* Golan v. Holder, 132 S. Ct. 873, 890-91, (2012); Eldred v. Ashcroft, 537 U.S. 186, 219-20 (2003).

[154] Ralph Tegtmeier, "Bye-bye, Crawler: Blocking the Parasites," *Search Engine Watch*, Aug. 4, 2010.

[155] Some have criticized the doctrine. *See* Laura Quilter, "The Continuing Expansion of Cyberspace Trespass to Chattels," 17 *Berkeley Tech. L. J.* 421, 436-43 (2002).

[156] In theory, parties could negotiate access to different terms. They generally do not, partly because search engines would likely be unable to negotiate different terms for accessing each site.

[157] The Media Institute, "Google and the Media: How Google Is Leveraging Its Position in Search to Dominate the Media Economy," 29 (2011).

[158] Adam Kovacevich, "Response to The Media Institute White Paper: The Truth About Google, Search, and the Media Industry," *Media & Communications Policy*, Oct. 6, 2011, *www.mediacompolicy.org/2011/10/articles/digital-technology/response-to-the-media-institute-white-paper-the-truth-about-google-search-and-the-media-industry/*.

[159] We would have to assume that Google's practice is an antitrust violation either because books and videos are "essential facilities" or because of the doctrine of raising rivals' costs. Thomas G. Krattenmaker & Steven C. Salop, "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price," 96 *Yale L.J.* 209 (1986). For essential facilities, we have to assume that the Supreme Court would recognize the doctrine—it never has. Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 411 (2004). Raising rivals' costs is generally not enough on its own for a claim. *See* Areeda & Hovenkamp, *supra* note 50, at 109 ("[M]any practices that raise rivals' cost, such as innovation that either deprives rivals or (sic) revenue or forces them to innovate in return, are also welfare-enhancing. As a result, raising rivals' costs can never operate as a complete test for exclusionary conduct."). In addition, competitors such as Microsoft can afford to make similar investments in scanning books or an alternative video service, so courts may conclude that Google is not raising rivals' costs so much as refusing to subsidize competitors that are unwilling, but able, to make similar investments.

[160] *See* Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. at 407-08.

[161] Richard Waters, "Google's YouTube Gamble Is Vindicated," *Financial Times*, Jan. 1, 2010; Sherilynn Macale, "Google Reportedly Dishes $100M for New and Original YouTube Content," *Next Web*, Oct. 3, 2011.

[162] One of the coauthors has disagreed with a provision of the Google Books settlement proposal that would have given Google a preferred position regarding the law itself, granting Google rights with in-copyright, out-of-print books that others would lack. Marvin Ammori, "Google Books Settlement: Copyright, Congress, and Information Monopolies," *ConcurringOpinions*, Mar. 23, 2011. That provision would have applied copyright law differently to Google, and he argued, as we do here, that the same copyright rules should apply to all competitors in that space.

[163] Nancy Gohring, "Microsoft Shuts Down Book Search," *InfoWorld*, May 23, 2008.

[164] Forcing Google to share its services is far more problematic than the more justifiable laws historically forcing telecommunications common carriers to share assets with their competitors. Among other things, generally, the legislature and a specialized agency, not the antitrust courts, required such sharing as a matter of economic policy. *See* Verizon v. FCC, 535 U.S. 467 (2002). Thus, as a descriptive matter, arguing for such sharing to an antitrust court would have been a losing argument. *Cf.* Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 406 (2004). Moreover, the telecommunications-sharing obligations pertained to lines that were built with enormous government subsidies, generally under government-provided monopoly protection to the local phone or local cable company. In this case, Google has invested its own funds, without a government backed monopoly, and has invested in new innovations. Thus, the innovation and investment calculus is different.

[165] An antitrust court could set a price for such innovation sharing, and that price would have to take into account not just the cost of the specific shared innovation, but also, of the failed innovations (such as Google Wave or Slide) that are necessary to create the innovation. Determining that figure, and

modifying it over time, would be a difficult challenge, likely subject to error costs and complex expert testimony and evidence on both sides.

[166] FairSearch Report, *supra* note 2, at 41.

[167] Leena Rao, "Google Spent Nearly $2 Billion On 79 Acquisitions In 2011," *TechCrunch*, Jan. 27, 2012; Christopher Dawson, "Google's 40 Acquisitions in 2010: What About Integration?," *ZDNet*, Oct. 30, 2010.

[168] FairSearch Report, *supra* note 2, at 41.

[169] ICOMP Report, *supra* note 2, at 37.

[170] Don Harrison, "Acquisitions and Antitrust," *Google Public Policy Blog*, Dec. 15, 2010, *googlepublicpolicy.blogspot.com/2010/12/acquisitions-and-antitrust.html.*

[171] Matt Rosoff, "Google Has Made More Than 50 Acquisitions This Year – Here Are The Ones We Know About," *Business Insider*, Oct. 27, 2011.

[172] "Acquisitions," *CrunchBase, www.crunchbase.com/acquisitions?page=1*; "List of Acquisitions by Google," *Wikipedia, en.wikipedia.org/wiki/List_of_acquisitions_by_Google*.

[173] "List of Mergers and Acquisitions by Microsoft," *Wikipedia*, *en.wikipedia.org/wiki/List_of_mergers_and_acquisitions_by_Microsoft.*

[174] 15 U.S.C. § 26 (2012) (providing private right of action for injunctive relief "against threatened loss or damage by a violation of the antitrust laws"). *See* Mary K. Marks & Beverly J. Ang, "Agency Merger Enforcement in Non-Reportable Transactions," Feb. 1, 2010, *available at www.srz.com/Agency_Merger_Enforcement_in_NonReportable_Transactions/*.

[175] Clint Boulton, "Google, Apple Extend Search Deal for iPhone, iPad," *eWeek*, Sept. 25, 2010; Matt McGee, "Google, Mozilla Renew Firefox Search Deal for 3 More Years," *Search Engine Land*, Dec. 20, 2011.

[176] Greg Sterling, "Deal Puts Microsoft Live Search on Dell Computers, Verizon Phones – Will It Help?" *Search Engine Land*, Jan. 7, 2009; Zach Epstein, "Windows Market Share Slides in October as Mac, Linux Gain," *Boy Genius Report*, Nov. 2, 2011; Patrick Seitz, "Microsoft Expands Bing Search Engine Reach Through Deals," *Investors' Business Daily: Click Tech. Blog*, Feb. 5, 2010.

[177] *See* Gabe Donnini, "Is Bing Winging on Internet Explorer?," *Insights*, July 27, 2011.

[178] *See* Jonathan Levin, "Auction Theory 2," Oct. 2004, *available at www.stanford.edu/~jdlevin/Econ%20286/Auctions.pdf*.

[179] See Kara Swisher, "Google Will Pay Mozilla Almost $300M Per Year in Search Deal, Besting Microsoft and Yahoo," *All Things D*, Dec. 22, 2011.

[180] Bing is the default search engine of Internet Explorer (a Microsoft product) and Blackberry, and a disproportionate percentage of search queries on those platforms use Bing. Gabe Donnini, "Is Bing Winging on Internet Explorer?," *Insights*, July 27, 2011.

[181] See Joe Wilcox, "Microsoft Q4 2011 by the numbers: $17.37B revenue, $5.87B profit, 69 cents EPS," *BetaNews*, July 21, 2011; Steven D. Jones, "Microsoft Shares Reach Highest Level Since Spring 2010," *Dow Jones Newswires*, Jan. 20, 2012.

[182] Schonfeld, *supra* note 5.