Speech Engines

James Grimmelmann*

94 MINN. L. REV. (forthcoming 2014)

Academic and regulatory debates about Google are dominated by two opposing theories of what search engines are and how law should treat them. Some describe search engines as passive, neutral conduits for websites' speech; others describe them as active, opinionated editors: speakers in their own right. The conduit and editor theories give dramatically different policy prescriptions in areas ranging from antitrust to copyright. But they both systematically discount search users' agency, regarding users merely as passive audiences.

A better theory is that search engines are not primarily conduits or editors, but advisors. They help users achieve their diverse and individualized information goals by sorting through the unimaginable scale and chaos of the Internet. Search users are active listeners, affirmatively seeking out the speech they wish to receive. Search engine law can help them by ensuring two things: access to high-quality search engines, and loyalty from those search engines.

The advisor theory yields fresh insights into long-running disputes about Google. It suggests, for example, a new approach to deciding when Google should be liable for giving a website the "wrong" ranking. Users' goals are too subjective for there to be an absolute standard of correct and incorrect rankings; different search engines necessarily assess relevance differently. But users are also entitled to complain when a search engine deliberately misleads them about its own relevance assessments. The result is a sensible, workable compromise between the conduit and editor theories.

---

* Visiting Professor of Law, Georgetown University Law Center; Professor of Law (on leave), New York Law School. I presented earlier versions of this work in faculty workshops at the University of Michigan, George Washington University, the University of Maryland, and Georgetown; to the Yale Law School Information Society Project; and at the 2012 Intellectual Property Scholars conference. My thanks to the participants, and to Aislinn Black, Jack Balkin, Yochai Benkler, Stuart Benjamin, Shyamkrishna Balganesh, Donald Braman, Michael Carroll, Anne Chen, Danielle Citron, Richard Chused, Julie Cohen, Laura DeNardis, Deven Desai, Michael Froomkin, Doni Gewirtzman, Tarleton Gillespie, Eric Goldman, Joris van Hoboken, David Johnson, Eddan Katz, Molly Land, Sarah Lawsky, Thomas Lee, Mark Lemley, Viva Moffat, Paul Ohm, Frank Pasquale, Mark Patterson, Guy Pessach, Lisa Ramsey, Chris Riley, Rebecca Roiphe, David Super, Peter Swire, Felix Wu, and Steven Wu.

INTRODUCTION

To understand the Problem of Google, there are worse places to look than the *New York Times* editorial pages. Not because the *Times* has some special insight into Google, but rather precisely because it does not. In 2009 and 2013, the *Times* published a pair of mirror-image op-eds, one each for and against the search giant, presenting the toughest allegations against the company and the broadest defense of its actions. Each of them expresses something like the conventional wis-

dom about Google. And in the contrast between them can be seen something of why it is so hard to know just what to do about search.[2]

In December 2009, the *Times* ran "Search, but You May Not Find," by Adam Raff, in which he accused Google of slanting its search results to favor its own services.[3] He wrote that his company, Foundem, "was effectively 'disappeared' from the Internet" when it was demoted in Google's search results.[4] He called on the government to adopt a policy of "search neutrality" and protect websites like Foundem from Google's dominance.[5] His charges anticipated the "search bias" issues at the heart of the Federal Trade Commission's ambitious antitrust investigation of Google.[6]

But in January 2013, just after the the FTC's investigation had fizzled out with a no-action letter on search bias, the *Times* ran "Is Google Like Gas or Like Steel?" by Bruce Brown and Alan Davidson.[7] Google, they argued, was like the Associated Press: protected by the First Amendment.[8] In 1945, the Supreme Court held that antitrust law would not "compel A.P. or its members to permit publication of anything which their 'reason' tells them should not be published."[9] This same standard should apply to Google, Brown and Davidson argued, explaining that "search engines need to make choices about what results are most relevant to a query, just as a news editor must decide which stories deserve to be on the front page."[10]

These op-eds endorse two diametrically opposed theories of what a search engine is. To Raff, and to scholars like Jennifer Chandler[11] and Frank Pasquale,[12] Google ought to be a passive and neutral *conduit*, connecting users to websites and then stepping out of the way. To Brown and Davidson, and to scholars like Eric

---

[2] In previous work, I developed a descriptive taxonomy of legal and policy issues relating to search. *See* James Grimmelmann, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1 (2007). This Article adds a normative framework for resolving those issues.

[3] Adam Raff, *Search But You May Not Find*, N.Y. TIMES, Dec. 28, 2009, at A27.

[4] *Id.*

[5] *Id.*

[6] *See* Statement of the Commission, *In the Matter of Google Inc.*, No. 111-0163 (Jan. 3., 2013).

[7] Bruce D. Brown & Alan B. Davidson, *Is Google Like Gas or Like Steel?*, N.Y. TIMES, Jan. 4, 2013, at A17.

[8] *Id.*

[9] Associated Press v. United States, 326 U.S. 1, 20 n.18 (1945).

[10] Brown & Davidson, *supra* note __. Brown knows more than a little about the press's free speech rights: he is executive director of the Reporters Committee for Freedom of the Press.

[11] *See* Jennifer A. Chandler, *A Right to Reach an Audience: An Approach to Intermediary Bias on the Internet*, 35 HOFSTRA L. REV. 1095, 1097 (2007).

[12] *See, e.g.*, Frank Pasquale, *Rankings, Reductionism, and Responsibility*, 54 CLEV. ST. L. REV. 115 (2006).

Goldman[13] and Eugene Volokh,[14] Google instead ought to be an active and opinionated *editor*, sifting through the Internet and using expert judgment to identify the important and the interesting. These two theories form the rhetorical backdrop to the ongoing legal battles over search.

The choice between "conduit" and "editor" has decisive implications for how the law should deal with Google—and it is more complicated than a simple "Google wins" or "Google loses." On search bias claims like Foundem's, the conduit theory is a recipe for regulation, while the editor theory offers a First-Amendment get-out-of-jail-free card.[15] But when the issue is defamation, the conduit theory holds Google harmless for the sins of the websites it unknowingly connects users to, while the editor theory calls down the vengeance of the heavens on Google for its editorial decisions.[16]

Indeed, not even Google itself can keep straight whether it is an objective conduit or a subjective editor. In 2006, responding to a search-bias lawsuit from the children's-information website KinderStart, one of Google's lawyers explained that "Google is constantly evaluating Web sites for standards and quality, which is entirely *subjective*."[17] But in 2012, Google faced a defamation lawsuit from the former "First Lady" of Germany, Bettina Wulff, who objected that typing `[bettina wulff]` into Google produced autocomplete search suggestions including `[bettina wulff escort]` and `[bettina wulff prostitute.]`[18] Google's response: autocomplete suggestions are "the algorithmic result of several *ob-*

---

[13] *See, e.g.*, Eric Goldman, *Search Engine Bias and the Demise of Search Engine Utopianism*, 8 YALE J.L. & TECH. 188 (2006

[14] *See* Eugene Volokh & Donald M. Falk, *Google First Amendment Protection for Search Engine Search Results*, 8 J.L. ECON. & POL. 883 (2012)

[15] *See infra* Part IV.

[16] *See infra* Part V.C.

[17] Dawn Kawamoto, *Suit over Poor Google Ranking May Go Forward*, CNET NEWS (June 30, 2006), http://news.cnet.com/Suit-over-poor-Google-ranking-may-go-forward/2100-1025_3-6090239.html (quoting David Kramer). This is not an isolated statement; Google has made it repeatedly to courts. See Search King, Inc. v. Google, Inc., No. CIV-02-1457-M, 2003 WL 21464568, at *3–*4 (W.D. Okla. May 27, 2003) Search King, Inc. v. Google, Inc., No. CIV-02-1457-M, 2003 BL 1897 (W.D. Okla. Jan 13, 2013); Kinderstart.com v. Google, Inc., No. C 06-2057 JF (RS), 2006 WL 3246596, at *13–*14 (N.D. Cal. July 13, 2006); Kinderstart.com v. Google, Inc., No. C 06-2057 JF (RS), 2007 WL 831806, at *20–*21. (N.D. Cal. Mar. 16, 2007); Langdon v. Google, Inc, 474 F.. Supp. 2d 622, 629–30, 631–32 (D. Del. 2007). *See also* Datner v. Yahoo, No. BC 355217, at *2–*3 (Cal. Super. Ct. Dec. 12, 2006) (dismissing similar claim against Yahoo!). Google's Eric Schmidt has also claimed, in Congressional testimony, "Search is subjective, and there's no 'correct' set of search results." Schmidt Testimony at 7

[18] Stefan Niggemeier, *Autocompleting Bettina Wulff: Can a Google Function Be Libelous?*, DER SPIEGEL (Sept. 20, 2012) (Paul Cohen, trans.), http://www.spiegel.de/international/zeitgeist/google-autocomplete-former-german-first-lady-defamation-case-a-856820.html. In this Article, I follow the industry convention of placing search terms between brackets and setting them in a fixed-width typeface.

jective factors, including the popularity of search terms."[19] Google's enemies are equally opportunistic: Google should objectively present the web as it is, except when that would be bad, in which case Google should subjectively step in to fix things.[20]

Others have noted the tension between these two theories of search.[21] In First Amendment terms, the crucial difference is the identity of the relevant speaker: the conduit theory focuses on websites' speech, the editor theory on search engines'. Raff's op-ed is an eloquent plea for Foundem's right to present its views to users free from Google's interference; Brown and Davidson's op-ed is an equally eloquent plea for Google's right to present its own views to users free from the government's interference. Speech meets speech, with no obvious way to assign priority to one or the other. The Problem of Google thus presents itself as an intractable opposition between websites and search engines; it puts courts and regulators to a stark and partisan choice between two incompatible characterizations of search.

But there is another possibility. It takes two to tango, and three to search. In addition to the website and the search engine, there is also the user. For all their differences, the conduit and editor theories have a common conception of search users: as audiences, whose only job is to consume the speech of others. On the conduit theory, users are eyeballs for websites; the search engine's job is to get out of the way and deliver to each website the user traffic to which it is properly entitled. And on the editor theory, users are eyeballs for search engines; a dissatisfied user's best and only option is to change the channel and try another search engine. Neither of these models fully captures how people use search, because search responds to users' interests in a way that other media do not.

Instead of passively consuming from a fixed menu set before them, search users actively seek out information. Each query—`[fayette monroe shoot-`

---

[19] *Id.* (quoting unnamed Google spokesman). *See also An Explanation of our Search Results*, GOOGLE (2011), http://www.google.com/explanation.html ("The beliefs and preferences of those who work at Google, as well as the opinions of the general public, do not determine or impact our search results.") The initial version of this statement was even more emphatic. *See id.* (June 7, 2004), http://web.archive.org/web/20040607132019/http://www.google.com/explanation.html ("Our search results are generated completely *objectively* . . . . Because of our *objective* and automated ranking system, Google cannot be influenced by these petitions.") (emphasis added).

[20] For a good example of the kitchen-sink approach to attacking Google, see generally SCOTT CLELAND, SEARCH AND DESTROY: WHY YOU CAN'T TRUST GOOGLE INC. (2011).

[21] *See, e.g.*, Frank Pasquale, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, 2008 U. CHI. LEGAL FORUM 1, 4; Danny Sullivan, *KinderStart Becomes KinderStopped In Ranking Lawsuit Against Google*, SEARCH ENGINE WATCH (July 14, 2006), http://searchenginewatch.com/article/2058241/KinderStart-Becomes-KinderStopped-In-Ranking-Lawsuit-Against-Google.

`ing]` or `[brining pheasants for smoking]` or `[baby splotchy rash with white bumps]` or `[DIY subwoofer]`—expresses a desire to become better-informed on a specific subject. The queries, and the desires, are as diverse as the range of human experience. The search results that come back are a personally customized mix of websites; if the process is working well, they are uniquely relevant to the user's unique interests. This is profoundly good for individual autonomy, and the law ought to promote it. Good search policy would put users first.

From the user's perspective, a search engine is not primarily a conduit or an editor. Instead, it is a trusted *advisor*. It listens to a user's description of her goals in the form of a search query, performs research on her behalf, uses its expert judgment to sift through what it has learned, and reports back to her with recommendations on which websites to visit and which ones to ignore. This point of view harmonizes the conduit and editor theories by incorporating insights from both. A search engine connects websites to users *and* it exercises discretion in creating its results. The two functions are inseparable because they are both aspects of advising search users about websites.

There are threads of the advisor theory throughout the existing debates on search. But because these debates have traditionally been understood as a series of binary choices—conduit or editor, objective or subjective, for Google or against it—their significance has been discounted. Users' interests are present, but only rhetorically, as a justification for siding with websites or with search engines. Commentators simply assume that the question to be answered is whether treating search engines as conduits or editors is better for users in the long run. That both of these options might sell users short has not previously been suggested.

If we are determined, as we should be, to put search users first, law can do two things for them. It can promote *access* to search by enabling users to draw on the aid of search engines, and it can promote *loyalty* in search by preventing search engines from misleading users. Access responds to the conduit theory: the search engine owes nothing to websites struggling to be heard; what matters is the user's ability to select among websites, which necessarily includes ignoring most of them most of the time. And loyalty responds to the editor theory: a search result is not a product the user consumes for its own sake; it is useful only as a way to find the websites whose speech the user really values.

Taking access and loyalty as guiding principles provides fresh insights into numerous legal and regulatory debates about search. Take a search bias claim like Foundem's: that Google unfairly lowered its search ranking.[22] On the conduit the-

[22] This argument is presented in more detail *infra* Part IV.

ory, which says that search results are objective, Foundem's claim should succeed, as long as Foundem is right that its website really is better than the alternatives. On the editor theory, which says that search results are subjective, Foundem's claim is doomed at the outset: Google is categorically free to express its own opinion of websites.

On the advisor theory, matters are more nuanced. From users' point of view, website quality is subjective; no two users will have quite the same preferences. You say tomato.com; I say tomato.org. In a search for `[tomato]`, either result could be right. Access explains that no website ever has a right to insist on top placement; if it did, it would override the preferences of users who are looking for something else. But Google is not off the hook, because there is also loyalty. Search engines systematically measure user satisfaction with search results; they develop algorithms intended to return the results users want. And if Google shows tomato.com, knowing full well that most users would have preferred to see tomato.org, that could well be a problem. It disserves users because it deceives them. The search results are not *wrong* in an absolute sense, but they are are *dishonest* in the context of Google's relationship to its users.

In fact, this is very close to the approach the FTC took when it dismissed the search-bias portion of its investigation into Google. The practice competitors complained most vehemently about—Google's favoring its own maps and other "vertical" results over competitors'—was acceptable, the Commission wrote, because "Google's primary goal in introducing this content was to quickly answer, and better satisfy, its users' search queries."[23] On the conduit and editor theories, Google's motives should have been irrelevant: both theories focus on conduct, one to condemn, the other to justify. But on the advisor theory, motive is crucial, because it is the intent to harm users that makes the ranking disloyal and thus actionable. The FTC did not explain why its analysis properly turned on Google's motives; the advisor theory supplies the missing explanation.

This Article presents, defends, and applies the advisor theory of search. Part I is background. It provides a quick technical overview of how search engines work and a glossary of important search terminology. Part II describes the conduit and editor theories, showing how they embrace two fundamentally incompatible visions of what search is and how to regulate it. Part III resolves the tension between them by introducing and defending the advisor theory. Part IV applies the advisor theory to the search bias issue at the heart of the FTC's investigation, concluding that the FTC was probably right to drop the investigation without action. And Part V shows that the advisor theory is useful more broadly, presenting four

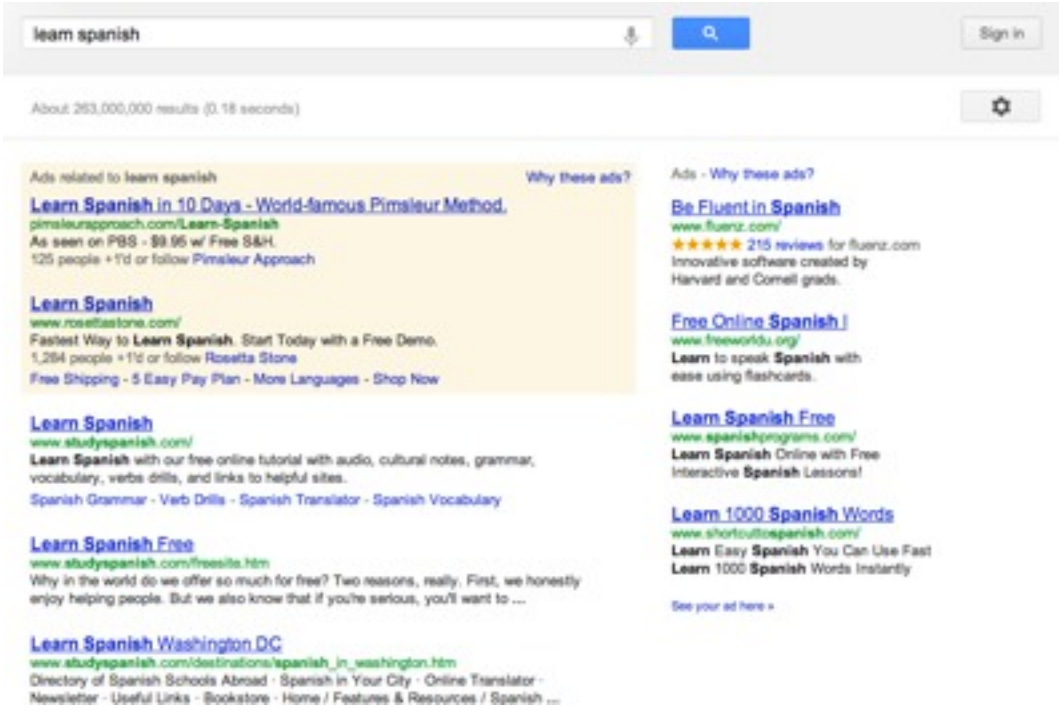
---

[23] Statement of the Commission, *supra* note __, at 2.

short case studies of how it offers useful advice on other recurring problems in search law. A brief Conclusion concludes.

I. How Search Engines Work

If you type `[learn spanish]` into Google[24] you will see something like the following:



In the argot of search, this is a *results page* created based on the *query* [`learn spanish`].[25] This particular query contains two *keywords* or *search terms*. The displayed portion of the results page shows three *organic links* and two sets of *sponsored links* (or *search ads*). Each of the results consists of a link back to the website (underlined in blue), a text version of the website's online address (in green), and two lines of text excerpted from the website or supplied by it in black). For image searches, the excerpt is a *thumbnail* of the image; for books it is an eighth-of-a-page

---

[24] Although the Article is primarily concerned with Google, most of this discussion also applies to other Web search engines like Bing and DuckDuckGo.

[25] *See generally* John Battelle, The Search: How Google and Its Rivals Rewrote the Rules of Business and Transformed Our Culture (2005) (giving history of web search); Steven Levy, In The Plex: How Google, Thinks Works, and Shapes Our Lives (2011) (bringing history up to date through 2011).

snippet; a video is usually represented by a single frame. The ordinal position of a result is called its *ranking*.[26]

The organic results are generated through a three-step process. First, Google's computers *crawl* webpages and other sources to learn about what information they contain and how they link to each other. Second, Google uses complex and time-consuming algorithms to analyze the pages and their relationships. These estimates are based on hundreds of *signals* that assess pages' importance and their *relevance* to particular search terms. Examples of signals include whether a website is commercial or educational, how recently a webpage was updated, and whether a letter followed by a period might be a middle initial.[27] The third step comes in response to the user's query: Google consults its tables of signals, identifies those webpages that score highly for the query, and then displays them in descending order of relevance. All of this is completely standard for modern search engines; only the specific signals differentiate one search engine from another.

Traditionally, there were two types of search engines. "General" search engines indexed the entire web; "vertical" search engines narrowed their focus to a specific type of content, such as movies,[28] hotel bookings,[29] African-American themes,[30] or product comparisons.[31] Google initially expanded into vertical search with specialized local search, news search, and image search, each with its own URL. In May 2007, the company took an important step to break down these distinctions. It launched Google Universal Search, which "blend[ed] content from Images, Maps, Books, Video, and News into [Google's] web results."[32] Here is an example, which shows a restaurant-themed search for `[hamburgers in topkea ks]`. The top three results are standard general web results from the third-party websites Urbanspoon and Topeka.net. But they are followed by local search results from Google's vertical local-search engine, and to the right of the main column is a map from Google Maps showing the locations of those restaurants.

---

[26] Confusingly, a "top" ranking means visually near the top of the first page of results, and a "low" ranking is anything else—but it is actually the "low" rankings that have numerically greater ordinal rank when the results are ordered "first," "second," and so on.

[27] Steven Levy, *How Google's Algorithm Rules the Web*, WIRED, Mar. 2010.

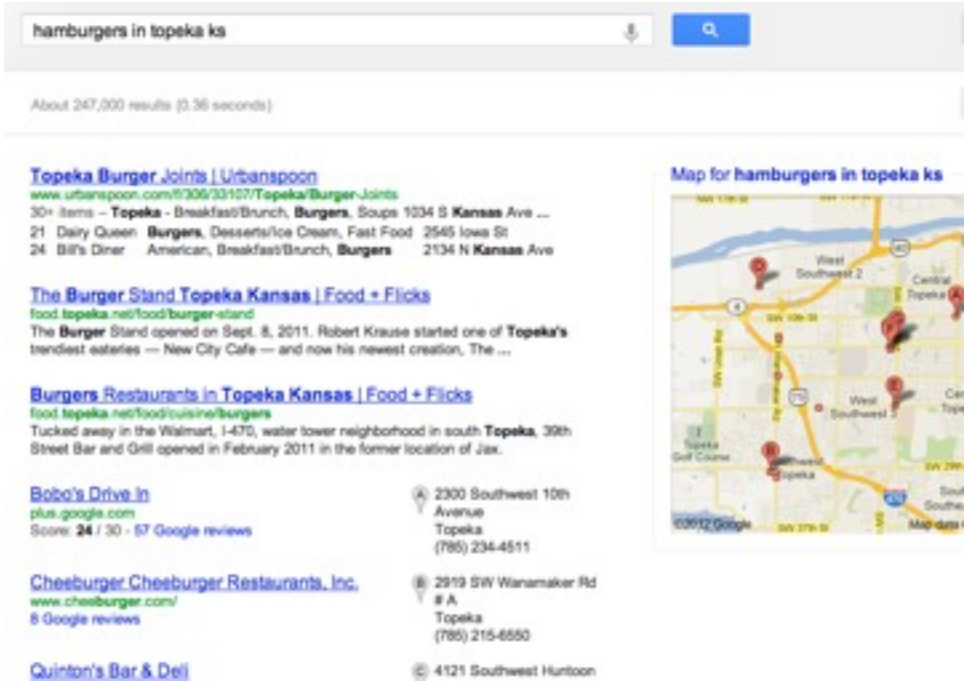
[28] *See, e.g.*, INTERNET MOVIE DATABASE, http://www.imdb.com/search/.

[29] *See, e.g.*, HOTELS.COM, http://www.hotels.com.

[30] *See, e.g.*, AFROROOTS, http://www.afroroots.com.

[31] *See, e.g.*, PRICEGRABBER, http://www.pricegrabber.com.

[32] Marissa Meyer, *Universal Search: The Best Answer Is Still the Best Answer*, GOOGLE OFFICIAL BLOG (May 16, 2007), http://googleblog.blogspot.com/2007/05/universal-search-best-answer-is-still.html.



Google is hardly alone in starting down this road. Microsoft's Bing, for example, has many of the same categories of vertical results as Google does. But Google's powerful position—it has 67% of the United States search market[33] and upwards of 90% in some European countries[34]—has given its move to universal search a special urgency.

II. The Conduit and Editor Theories

Everyone claims to have users' interests at heart, and yet the pro- and anti-Google camps are at loggerheads over how best to help them. The explanation is the powerful gravitational pull of the conduit and editor theories of search. Commentators who start off talking about what would be best for users find themselves drawn—often without even realizing it—to one of these decidedly non-user-centric theories of search. To understand what a truly user-centric theory of search would look like, therefore, it is necessary to start by bringing out the implicit assumptions made by these other theories.

---

[33] *See comScore Releases January 2013 U.S. Search Engine Rankings*, ComScore (Feb. 13, 2013), http://www.comscore.com/Insights/Press_Releases/2013/2/comScore_Releases_January_2013_U.S._Search_Engine_Rankings

[34] Paul Geitner, *Google Moves Toward Settlement of European Antitrust Investigation*, N.Y. Times, July 24, 2012, at B3.

A. The Conduit Theory

When you write about search, you get the most interesting emails. For example:

> On a contingency fees Basis, I want to sue **Google**, who, using its dominant position (and through Googlebot actions, regularly registered on my Web Sitemeter) **censors**, constantly, deliberately and vigorously, Texts and Images of my (un-harmful) Website . . . as it can be easily proved.[35]

This brief plea for help is the conduit theory in a nutshell: the law should prevent Google from using its "dominant position" to "censor" websites.

Websites and their Google nightmares are at the heart of the conduit theory. Sometimes, the harms are economic: the French legal search engine eJustice lost customers and advertising revenue after being demoted in Google's rankings; it sued for €295 million.[36] But there are just as many stories in which speech is at stake; Christopher Langdon sued Google for refusing to let him advertise his websites NCJusticeFraud.com and ChinaIsEvil.com.[37]

The scholars who sympathize with these websites draw on the well-established tradition in free-speech theory that speakers should have an affirmative right of access to the mass media.[38] They argue that speakers can effectively reach the public only with the media's help; where that help is withheld, the result is private censorship.[39] Telecommunications law's long history of nondiscrimination rules,[40] from the treatment of telephone and telegraph as common carriers[41] to the recent push for network neutrality,[42] embody this philosophy. So did right-of-

---

[35] Email to James Grimmelmann (Jan. 26, 2013) (on file with author) (color, underline, boldface, capitalization, and punctuation in original).

[36] *See* INSTITUTE FOR A COMPETITIVE ONLINE MARKETPLACE, GOOGLE UNDER THE ANTITRUST MICROSCOPE 12-13 (2011).

[37] Landgon v. Google, 474 F. Supp. 2d. 622, 626 (2007).

[38] The urtext for this tradition is Jerome A. Barron, *Access to the Press—A New First Amendment Right*, 80 HARV. L. REV. 1641 (1967). For modern commentary on the tradition, *see generally Access to the Media: 1967 to 2007 and Beyond*, 76 GEO. WASH. L. REV. 819 *et seq.* (2008) (symposium issue on the 40th anniversary of Barron's original article); *Reclaiming the First Amendment*, 35 HOFSTRA L. REV. 917 *et seq.* (2007) (same).

[39] *See* Jack M. Balkin, *Media Access: A Question of Design*, 76 GEO. WASH. L. REV. 933, 935 (2008).

[40] *See generally* Tim Wu, *Why Have a Telecommunications Law? Anti-Discrimination Norms in Communications*, 5 J. TELECOMM. & HIGH TECH. L. 15 (2006); Daniel Lyons, *Net Neutrality and Nondiscrimination Norms in Telecommunications*, 54 ARIZ. L. REV. 1029 (2012).

[41] *See* 47 U.S.C. § 202 (prohibiting "any unjust or unreasonable discrimination" by common carriers).

[42] *See* Report and Order: Preserving the Free and Open Internet, FCC 10-201 (Dec. 23, 2010).

reply statutes[43] and the FCC's late fairness doctrine,[44] which compelled mass media to present opposing viewpoints.[45] In each case, the medium is regarded as a *conduit*: it exists to carry the speech of others.[46]

With the rise of the Internet and of Google, scholars have extended this argument to search engines.[47] The argument requires one significant modification, because search engines are not "means of speech"[48] like printing presses or cable networks. Instead, they are "selection intermediaries"[49] that direct users to one information provider or another.[50] Because of their role, they have immense power to choose which speakers are found and which speakers are sent "to the back row of the arena."[51] Since search engines have the same practical power as traditional mass media to shape public discourse, goes the argument, they should be subject to the same scrutiny and perhaps to the same regulations.[52] Some scholars have argued that websites should have an affirmative right to be included

---

[43] *See* Miami Herald Pub'g Co. v. Tornillo, 418 U.S. 241, 244 (describing Florida right-of-reply statute).

[44] *See* Red Lion Broad. Co. v. FCC, 395 U.S. 367, 373–86 (describing history of fairness doctrine);.

[45] *See also* Television Assignments, 41 F.C.C. 148 (1952) (reserving television channels for educational broadcasting); Turner (upholding statute requiring cable operators to carry certain local broadcast television stations).

[46] Laidlaw at 122 ("The media's core role is to publish."); Bracha and Pasquale, *Federal Search Commission* at 1199 ("[S]earch engine rankings play a central *instrumental* role in facilitating effective speech by others."). *See also* Matthew D. Lawless, Note: *Against Search Engine Volition*, 18 ALB. LJ. SCI. & TECH. 205, 223 (2008) ("[T]he search engine's effective function is to serve as a conduit between third parties.").

[47] *See, e.g.*, Lucas D. Introna & Helen Nissenbaum, *Shaping the Web: Why the Politics of Search Engines Matter*, 16 THE INFORMATION SOCIETY 169, 169–70, 178–80 (2000) (drawing parallels between debates about other media and search engines on the Internet).

[48] *See* Chandler, *supra* note __, at 1097.

[49] *Id.* at 1097.

[50] *See* Emily B. Laidlaw, *Private Power, Public Interest: An Examination of Search Engine Accountability*, 17 INT'L. J.L & INFO. TECH. 113, 123-26 (2008).

[51] Scott Cleland, *Google the Totalitarian*,PRECURSOR BLOG (Nov. 11, 2009), http://precursorblog.com/content/google-the-totalitarian, quoting Jonathan Rosenberg, *From the Height of This Place*, GOOGLE OFFICIAL BLOG (Feb. 16, 2009), http://googleblog.blogspot.com/2009/02/from-height-of-this-place.html. For further examples of this discourse, see, e.g., *The Google Algorithm*, N.Y. TIMES, July 15, 2010, at A30 (("break the business of a Web site that is pushed down the rankings"); Niva Elkin-Koren, *Let the Crawlers Crawl: On Virtual Gatekeepers and the Right to Exclude Indexing*, 26 U. DAYTON L. REV. 179, 183 (2001) ("focal point of control").

[52] *See, e.g.* Chandler, *supra* note __ at 1102-03; Laidaw, *supra* note __, at 123–37; Elkin-Koren, *supra* note __, at 183–87; Oren Bracha & Pasquale, *Federal Search Commission? Access, Fairness, and Accountability in the Law of Search,* 93 CORNELL L. REV. 1149, 1167-71 (2008).

in search engine indices.[53] Most recently, some observers have proposed "search neutrality" rules by analogy to network neutrality.[54] They all agree that the legal system should ensure that a diverse array of information providers can be found through search engines[55]—that the search engine is a conduit for their ideas.[56]

Three recurring metaphors illustrate how the conduit theory thinks about search: "maps," "traffic," and "bias." Scholars who say that search engines "create a map of the Web"[57] or that Google is "the main map to the information highway"[58] appeal to an ideal of accuracy and objectivity.[59] Oren Bracha and Frank Pasquale propose that search results be treated like maps, and the intuitive justifi-

---

[53] *See, e.g.*, Chandler, *supra* note __, at 1117, 25; Dawn Nunziato, *Death of the Public Forum in Cyberspace*, 20 BERK. TECH. L.J. 1115, 1123–25 (2005) DAWN NUNZIATO, VIRTUAL FREEDOM 14–17, 149–51 (2009), Of particular note is Pasquale, *Rankings, Reductionism*, *supra* note __, at 135–36 (2006) (proposing right of reply to harmful search results with asterisk). *But see* James Grimmelmann, *Don't Censor Search*, 117 YALE L.J. POCKET PART 48 (2007) (critiquing asterisk). *But but see* Frank Pasquale, *Asterisk Revisited: Debating a Right of Reply on Search Results*, 3 J. BUS & TECH. L. 61 (2008) (defending asterisk).

[54] *See generally* Nate Anderson, *How Google Became a Neutrality Target*, ARS TECHNICA (Apr 29, 2010), http://arstechnica.com/tech-policy/2010/04/search-neutrality-google-becomes-neutraliy/ (describing history of idea). Highlights from the debate include Andrew Odlyzko, *Network Neutrality, Search Neutrality, and the Never-Ending Conflict Between Efficiency and Fairness in Markets*, 8 REV. NET. ECON. 40 (2009); Raff, *supra* note __; Jeremy Jarosch,*Novel "Neutrality" Claims Against Internet Platforms: A Reasonable Framework for Initial Scrutiny,* 59 CLEV. ST. L. REV. 537 (2011); John Blevins, *The New Scarcity: A First Amendment Framework for Regulating Access to Digital Platforms*, 79 TENN. L. REV. 353 (2012). The Foundem-founded website SearchNeutrality.org offers a useful roundup of links and commentary on the pro-search-neutrality side; for a contrasting point of view, see James Grimmelmann, *Some Skepticism About Search Neutrality, in* THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET (Berin Szoka & Adam Marcus eds. 2010) at 435–47.

[55] Most ambitiously, some commentators proposed randomization, in which sites would be randomly promoted in search engine rankings. *See, e.g.*, Sandeep Pandey et al., *Shuffling a Stacked Deck: The Case for Partially Randomized Ranking of Search Results*, PROC. 31ST CONF. ON VERY LARGE DATABASES (2005).

[56] *See, e.g.*, Laidlaw, *supra* note __, at 124 ("[S]earch engines are now the portals through which the information on the Internet is experienced."); Bracha and Pasquale, *supra* note __, at 1192 ("[S]earch engines . . . portray[] themselves as passive conduits.").

[57] Introna and Nissenbaum, *supra* note __, at 171

[58] The Google Algorithm, *supra* note __.

[59] *See* Grimmelmann, *Structure of Search Engine Law*, *supra* note __, at 31–33.

cation is simple.[60] A good map shouldn't say that there's a bridge where there isn't one in real life.[61]

The related traffic metaphor is even sharper. Saying that a search engine delivers "traffic"[62] to websites implies that search is a kind of transportation infrastructure.[63] When Google "divert[s] traffic," the metaphor suggests an unwanted detour, like orange cones forcing users off the highway at the Google exit.[64] It also downplays any speech element in search; driving is a form of conduct, not communication.[65] As Bracha and Pasquale put it, "[r]ankings are functional rather than dialogical expressions."[66]

---

[60] Bracha and Pasquale, *Federal Search Commission*, *supra* note __, at 1194. In a footnote, they also compare search results to directory listings, concluding, "It is hard to conceive of a phone book as embodying any constitutionally protected message." *Id.* at 1194 n.238.

[61] Of course, maps can be inaccurate and intensely political; there are sometimes sharp controversies over what maps do and do not show.. *See* MARK MONOMEIER, HOW TO LIE WITH MAPS (2nd ed. 1996). Google has had a few unfortunate encounters with this phenomenon. *See* Frank Jacobs, *The First Google Maps War*, OPINIONATOR (Feb. 28, 2012), http://opinionator.blogs.nytimes.com/2012/02/28/the-first-google-maps-war/ (discussing tension between Nicaragua and Costa Rica over incorrect Google Maps depiction of disputed frontier territory). *See also* Rosenberg v. Harwood, No. No. 100916536, 2011 BL 333199, at *4–*5 (Utah Dist. Ct. May 27, 2011) (holding that Google owed no duty to warn Google Maps user that highway lacked sidewalks). *See also infra* Part IV.B (discussing tort liability for publishers of inaccurate maps).

[62] *See, e.g.*, CONSUMER WATCHDOG, TRAFFIC REPORT 15 (2010); GOOGLE UNDER THE ANTITRUST MICROSCOPE, *supra* note __, at 8.

[63] *Cf.* BRETT M. FRISCHMANN, INFRASTRUCTURE: THE VALUE OF SHARED SOCIAL RESOURCES 359–60 (2012) (discussing Google Books corpus and settlement as possible infrastructural resources).

[64] *See* Alex Barker, *Antitrust Chief Holds All the Aces*, FINANCIAL TIMES (LONDON), Jan. 11, 2013, at 17 (quoting Joaquín Almunia, European Commissioner for Competition). *See also, e.g.*, Raff and Raff, *Penalties, Self-Preferencing, and Panda* 1 (2011) ("Google can exploit its gatekeeper status to commandeer a substantial proportion of the traffic of almost any website or industry sector it chooses."); Grimmelmann, *The Structure of Search Engine Law*, *supra* note __, at 27–30.

[65] *Cf.* Bracha and Pasquale, *Federal Search Commission* at 1197 (comparing search result to "seller offering three alternative products in response to a buyer's inquiry").

[66] *Id.* at 1198.

The bias metaphor describes what happens when search engines fall short of this ideal.[67] Friedman and Nissenbaum define a computer system to be biased if it "*systematically* and *unfairly discriminate*[s] against certain individuals or groups of individuals in favor of others."[68] As applied to search engines, the idea is that an engine may skew its results in a way that imposes its own viewpoint on users.[69] These biases could be large and subtle—towards commercial content or popular sites[70]—or they could be specific and targeted to advance the search engine's own commercial interests.[71] But whatever form it takes, bias is bad.[72]

B. The Editor Theory

Some of Google's defenders have a surprising response to search bias: they embrace it. Blogger Mike Masnick writes, "[T]here's no such thing as "neutrality"

---

[67] The metaphor is pervasive in academic critiques of Google. Examples of papers that use the metaphor *in the title* include Introna and Nissenbaum, *supra* note __, Benjamin Edelman, *Bias in Search Results? Diagnosis and Response*, 7 INDIAN J. L. & TECH. 16 (2011), Goldman, *Search Engine Bias*, *supra* note __, Joshua G. Hazan, Note: *Stop Being Evil: A Proposal for Unbiased Google Search*, 111 MICH. L. REV. 789 (2013), and ALEJANDRO DIAZ, THROUGH THE GOOGLE GOOGLES: SOCIOPOLITICAL BIAS IN SEARCH ENGINE DESIGN (unpublished undergraduate thesis 2005).

The most remarkable—and embarrassing for Google—use of the term must be by Google's founders. *See* Sergey Brin and Lawrence Page, *The Anatomy of a Large-Scale Hypertextual Search Engine*, PROC. 7TH INT'L WORLD-WIDE WEB CONF (1998) ("Since it is very difficult even for experts to evaluate search engines, search engine bias is particularly insidious.") Related metaphors get at the idea of unfairness by treating search as a game. Google has "stacked the deck," Jeffrey Katz, *Google's Monopoly and Internet Freedom*, WALL ST. J., June 7, 2011, or failed to provide a "level playing field," Testimony of Jeremy Stoppelman, Cofounder and CEO, Yelp! Inc., "The Power of Google: Serving Consumers or Threatening Competition?" Hearing of the Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Sept. 21, 2011.

[68] Batya Friedman & Helen Nissenbaum, *Bias in Computer Systems*, 14 ACM TRANS. ON INFO. SYS., 330, 332 (1996).

[69] *See, e.g.*, Chandler, *supra* note __, at 1103 ("distortion . . . imposition of discriminatory filters"). Introna and Nissenbaum, *supra* note __, at 176 ("skewed"); James Grimmelmann, *Information Policy for the Library of Babel*, 3 J. BUS. & TECH. L. 201, 211 (2008) ("Search engines can play favorites.").

[70] *See, e.g.*, MATTHEW HINDMAN, THE MYTH OF DIGITAL DEMOCRACY 54–57 (2007) (discussing "Googelearchy" in which popular sites become even more popular); Laidlaw, *supra* note __, at 129; Diaz, *supra* note __, at 62–94.. *Cf.* Urs Gasser, *Regulating Search Engines: Taking Stock and Looking Ahead*, 8 YALE J.L. & TECH 201, 228–29 (2006) (discussing "diversity" of information sources as a policy goal for search).

[71] *See, e.g.*, Friedman and Nissenbaum, *supra* note __, at 330–31 (describing biases in computerized reservation systems favoring the systems' airline owners); Edelman, *Bias in Search Results?*, *supra* note __, at 19 (informal experiment to show pro-network neutrality bias in search results of network neutrality supporter Google); Bracha and Pasquale, *supra* note __, at 1170.

[72] *See* BEUC, FAIR INTERNET SEARCH: REMEDIES IN GOOGLE CASE 5 (Mar. 8, 2013) ("Google must use an objective, non-discriminatory mechanism to rank and display all search results, including any links to Google products.").

in search, because *any* ranking is biased *by what the search engine thinks is best*."[73] Or, as Eric Goldman argues:

> Search engines are media companies. Like other media companies, search engines make editorial choices designed to satisfy their audience. These choices systematically favor certain types of content over others, producing a phenomenon called "search engine bias."
>
> Search engine *bias* sounds scary, but . . . such bias is both necessary and desirable.[74]

And that's the editor theory in a nutshell: search engines are "media companies" that make "editorial choices" about what to publish.

In the words of a Google engineer, "In some sense when people come to Google, that's exactly what they're asking for—our editorial judgment."[75] Editor theorists agree that search results are "editorial judgments" about which websites might be of interest to users.[76] Search engines are editors that pick and choose among preexisting materials to generate a new presentation;[77] making the necessary choices requires the exercise of discretion and judgment.[78] Google even holds a patent on a "System and method for supporting editorial opinion in the ranking of search results."[79]

---

[73] Mike Masnick, *A Recommendation Is Not the Same As Corruption*, TECHDIRT (June 21, 2010), http://www.techdirt.com/articles/20100621/0355239887.shtml.

[74] Goldman, *Search Engine Bias*, *supra* note __, at 189. *See also* Christopher S. Yoo, F*ree Speech and the Myth of the Internet as an Unintermediated Experience*, 78 GEO. WASH. L. REV. 697, 707–08 ("It is thus hard to see how to make sense of criticisms that search engine results are 'biased' when bias is the very essence of the enterprise").

[75] Steven Levy, *TED 2011: The 'Panda' That Hates Farms: A Q&A with Google's Top Search Engineers*, WIRED NEWS (Mar. 3, 2011), http://www.wired.com/business/2011/03/the-panda-that-hates-farms/all/.

[76] *See, e.g.*, Volokh & Falk, *supra* note __, *passim* ("editorial judgment," "editorial choices," and "editorial control"); Goldman, *Search Engine Bias*, *supra* note __, at 112 ("editorial choices"); *id.* at 113 ("editorial judgments"); Eric Goldman, *Revisiting Search Engine Bias*, 38 WM. MITCHELL L. REV. 96, 106 ("editorial discretion"); Danny Sullivan, *The New York Times Algorithm and Why It Needs Government Regulation*, SEARCH ENGINE LAND (Jul. 15, 2010), http://searchengineland.com/regulating-the-new-york-times-46521 ("editorial judgment"); Brown & Davidson, *supra* note __ ("editorial judgment").

[77] *See, e.g.*, Volokh and Falk, *supra* note __, at 14 ("[Search results] are collections of facts that are organized and sorted using the judgment embodied in the engines' algorithms . . . ."). *Cf.* 17 U.S.C. § 101 ("A 'compilation' is a [copyrightable] work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.").

[78] *See* Volokh and Falk, *supra* note __, at 15 ("The First Amendment protects the decisions to include or exclude others' content, based on the speakers' exercise of their judgment . . . .").

[79] U.S. Pat. No. 7,096,214.

The editor theory has its own long and distinguished tradition in free speech law and theory.[80] The press is so central to the First Amendment that it is called out by name; the *United States Reports* are stuffed with encomia to the democratic contributions of editors and publishers.[81] Editors must be free to select and present unpopular and controversial viewpoints; the government is forbidden to interfere with their exercise of professional judgment.

Exhibit A for the editor theory is an analogy between Google and newspapers, most often the *New York Times*.[82] In response to a *Times* editorial calling for greater scrutiny of Google's search results,[83] search industry analyst Danny Sullivan wrote a scathing response turning the editorial's arguments back on the newspaper.[84] "When the New York Times editorial staff tweaks its supersecret algorithm behind what to cover and exactly how to cover a story—as it does hundreds of times a day—it can break a business that is pushed down in coverage or not covered at all."[85] The argument for regulating the *Times*'s editorial meetings is meant to be absurd, and thereby to illustrate the absurdity of the *Times*'s argument for regulating search rankings.[86]

---

[80] *See, e.g.*, Randall Bezanson, *The Developing Law of Editorial Judgment*, 78 NEB. L. REV. 754, 756 (1999) (reviewing role of press in free speech doctrine and theory, with particular focus on "the press's central instrument, editorial judgment, and its main claim to constitutional protection, editorial freedom").

[81] *See, e.g.* Pell v. Procunier, 417 U.S. 817, 832 ("The constitutional guarantee of a free press assures the maintenance of our political system and an open society and secures the paramount public interest in a free flow of information to the people concerning public officials.") (internal quotations omitted); Associated Press v. United States, 326 U.S. 1, 20 ("That Amendment rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public, that a free press is a condition of a free society. ").

[82] *See* Volokh and Falk, *supra* note __, at 4–5 (comparing search engines to newspapers); *id.* at 10 ("[S]earch engine companies are rightly seen as media enterprises, much as the New York Times Company or CNN are media enterprises."); Goldman, *Search Engine Bias*, *supra* note __, at 112 ("Search engines are media companies."); Sullivan, *The New York Times Algorithm*, *supra* note __; Brown & Davidson, *supra* note __ ("But search engines need to make choices about what results are most relevant to a query, just as a news editor must decide which stories deserve to be on the front page."); Written Response of Eric Schmidt to Questions for the Record (Sept. 21, 2011), Response to Senator Lee ("Just as a government panel could not dictate to the New York Times, the Drudge Report, or the Huffington Post what stories they could publish on their websites without infringing their freedom of speech, so too would government-mandated results likely violate Google's freedom of speech."). *Cf.* Chandler at 1126–29 (acknowledging similarity between selection intermediaries and newspapers but arguing for constitutionality of transparency and anti-blocking rules).

[83] *The Google Algorithm*, *supra* note __.

[84] Sullivan, *The New York Times Algorithm*, *supra* note __.

[85] *Id.*

[86] *Id.* ("Suffice it to say, the editorial staff of the New York Times would scream bloody murder if anyone suggested government oversight of its own editorial processes.")

A second characteristic trope of the editor theory is that search is hard. Commentators and advocates describe the difficulty of the search ranking process: the unfathomable number of webpages Google indexes,[87] the number of distinct signals on which it relies,[88] the number of changes it makes a year,[89] the extensive work that goes into assessing and improving the results.[90] These points are directed to showing that regulation of search results would be futile,[91] but they are also intended to demonstrate the human judgment involved.[92] In March 2012, Google released a video of a short segment of its weekly search quality meeting, showing its engineers spending eight minutes debating, with extensive empirical data, how to choose which words to spell-check in long search queries.[93] The resemblance to a newspaper editorial meeting cannot have been lost on Google's public-relations team.

A final trope of the editor theory is innovation in search technology. Search has progressed far beyond the "ten blue links" of a decade ago to a paradigm of universal search incorporating structured vertical results.[94] One point of emphasizing this evolution is to argue that Google's changes reflect industry-wide advances in how results are organized and presented to users, not nefarious motives unique to Google.[95] Another reason is to demonstrate the existence of vigorous competition in the industry, so that Google can defend its position only through vigorous innovation in improving search.[96] And a third is to argue that

---

[87] *See, e.g.*, James Grimmelmann, The Google Dilemma, 53 N.Y. L. SCH. L. REV. 939, 940 (2009); Volokh & Falk, *supra* note __, at 15 ("Search engines are vastly more selective . . . .").

[88] *See, e.g.*, Testimony of Eric Schmidt, "The Power of Google: Serving Consumers or Threatening Competition?" Hearing of the Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Sept. 21, 2011, at 3 [hereinafter "Schmidt Testimony"]. *See generally* Levy, *Google's Algorithm*, *supra* note __ (describing signals);

[89] Schmidt Response, *supra* note __, Response to Senator Lee 5. For examples, see, e.g., Pandu Nayak, *Search Quality Highlights: 65 Changes for August and September*, INSIDE SEARCH (Oct. 4, 2012), http://insidesearch.blogspot.com/2012/10/search-quality-highlights-65-changes.html (listing 65 algorithmic changes in 61 days).

[90] *See, e.g.*, Marissa Mayer, *Do Not Neutralize the Web's Endless Search*, FIN. TIMES (LONDON), July 15, 2010, at 9 ("Yet searching the web has never been more complex.").

[91] *See, e.g.*, Marvin Ammori & Luke Pelican, *Competitors' Proposed Remedies for Search Bias: Search "Neutrality" and Other Proposals*, J. INTERNET L., May 2012, at 1, 14–15.

[92] *See, e.g.*, Volokh and Falk, *supra* note __, at 11 ("[T]he computer algorithms that produce search engine output are written by humans."); Goldman, *Search Engine Bias*, *supra* note __, at 114.

[93] Search Quality Meeting: Spelling for Long Queries (Annotated) (8:10 YouTube video) (Mar. 12, 2012), http://www.youtube.com/watch?&v=JtRJXnXgE-A). *See also* Schmidt Testimony, *supra* note __, at 3.

[94] *See* Goldman, *Revisiting Search Engine Bias*, *supra* note __, at 102–05.

[95] *See, e.g.*, Ammori and Pelican, *supra* note __, at 10–11.

[96] *See* Schmidt Testimony, *supra* note __, at 3–4. *Cf.* Sullivan, *The New York Times Algorithm*, *supra* note __ (describing Yahoo!'s fall from dominance of the web).

any regulation of search results would inhibit future advances.[97] All of these arguments take a romantic view of the search engineer: he (or she, but usually he) is a creative technical genius whose talents society should harness by respecting his freedom to innovate.[98]

C. Three Points of Disagreement

The most fundamental difference between the conduit and editor theories is the way they think about speech. The conduit theory focuses on what search *does*; the editor theory on what search *says*. On the conduit theory, a search engine is a medium, and as a medium it has little or no speech interest of its own. It exists to help speakers reach audiences and the government should regulate it to that end. Conduit theorists argue that the "expressive element [in search rankings] is overwhelmingly minor and incidental."[99] Regulation to ensure that a search engine provides access to websites' speech would not interfere with the search engine's own speech, if any.[100]

In sharp contrast, editor theorists focus not on the speech of websites, but on the search engine's own speech. Take the newspaper analogy. Newspapers show that editing is speaking, so if the *Times* and other newspapers are fully protected by the First Amendment, Google is too.[101] The point is that the search engine is cogitating and communicating in ways that entitle it, normatively and legally, to the protections of free speech. Search engines are speakers.[102]

A second, related point of disagreement is that perennial chestnut of search policy: whether search results are objective or subjective. On the conduit theory, search results are, or should be, objective. The assumption of the map metaphor is that there is an underlying geography of information; an ideal presentation would represent that geography with as little distortion as possible.[103] A

---

[97] *See, e.g.*, Goldman, *Search Engine Bias*, *supra* note __, at 123; Meyer, *supra* note __; Ammori & Pelican, *supra* note __, at 19–20; Grimmelmann, *Don't Censor Search*, *supra* note __, at 50.

[98] *Cf.* Susan Crawford, *Network Rules*, 70 L & CONTEMP. PROBS. 51, 53–54 (describing the rhetorical figure of the "romantic builder" who must be free from governmental regulation to develop advanced communications networks).

[99] Bracha and Pasquale, *supra* note __, at 1193.

[100] Chandler, *supra* note __, at 1129; Bracha and Pasquale, *supra* note __, at 1192.

[101] Volokh and Falk, *supra* note __. *See also* Landgon v. Google, 474 U.S. 622, 629–30 (D. Del. 2007) (citing cases). *Cf.* Hurley v. Irish-American Gay, Lesbian & Bisexual Group, 515 U.S. 557, 570 (1995) ("[A]n edited compilation of speech generated by other persons is a staple of most newspapers' opinion pages.").

[102] *See* Volokh and Falk, *supra* note __, at 3. *But see* Grimmelmann, *Don't Censor Search*, *supra* note __, at 50 ("Search engines aren't megaphones . . . .").

[103] *See, e.g.*, Introna and Nissenbaum, *supra* note __, at 172–73 (critiquing assumption that particular technical processes used by search engines "are a reliable indication of importance or relevance").

claim of bias implies the possibility of its absence.[104] Search engine bias is deviation from an objective ideal.[105] Conduit theorists have turned Google's own words against it to argue that search is objective and impersonal.[106] They have particularly emphasized Google's eagerness to disclaim legal responsibility for the information it links to and excerpts, presenting itself as a passive intermediary rather than the source of that information.[107]

On the editor theory, search results are inherently subjective because they express a search engine's "opinion" about websites.[108] Where the conduit theory sees search rankings as mechanical and objective, the editor theory describes them as human and subjective, always uncertain and subject to debate.[109] Instead of decrying "bias," the editor theory celebrates it. Eric Goldman calls it "the unavoidable consequence of search engines' editorial control over their databases."[110] Others go further, arguing that "bias" is a valuable expression of the search engine's own valuable opinions about content.[111] For them, neutrality is neither possible nor desirable.[112]

---

[104] Chandler, *supra* note __, at 1105 ("The key opportunity presented by the Internet is unfiltered and essentially unbiased access to a vast quantity of speech.'); Katz, *Google's Monopoly* ("Google should provide consumers with access to the unbiased search results it was once known for . . . ."); Stoppelman testimony, *supra* note __, at 3 ("Google *artificially* promotes its own properties regardless of merit.") (emphasis added)

[105] *See generally* Edelman, *Bias in Search Results, supra* note __, at 21-23 (discussing construction of objective baseline for measuring bias); *cf.* Raff and Raff, *Please Stand Up, supra* note __ (no "right" answer to many searches but "any genuine pursuit of the most relevant results must, by definition, preclude any form of arbitrary discrimination.")

[106] Introna and Nissenbaum discuss and critique Yahoo!'s self-presentations. Introna and Nissenbaum, *supra* note __, at 172. For a general discussion of the rhetoric used by search engineers, see Van Couvering, *Is Relevance Relevant?*, *supra* note __.

[107] *See* Bracha and Pasquale, *Federal Search Commission, supra* note __ at 1192; Richard Siklos, *A Struggle Over Dominance and Definition*, N.Y. TIMES, Nov. 12, 2006 (quoting David Eun, a Google vice president, as saying, "I would say we're a conduit connecting our users with content and advertisers.").

[108] Ammori and Pelican at 17. For more extensive discussion of the status of search results as opinions, see *infra* Part IV.

[109] Volokh and Falk, *supra* note __, at 18–19; Goldman, *Search Engine Bias*, *supra* note __, at 114 n. 15; Ammori and Pelican, *supra* note at 13, 19; Mayer, *The Web's Endless Search, supra* note __; Grimmelmann, *Some Skepticism*, *supra* note __, at 443–44.

[110] Goldman, *Search Engine Bias*, *supra* note __, at 118.

[111] Volokh and Falk, *supra* note __, at 6.

[112] *Id.* at 19 ("some hypothetical and undefined expectations of abstract objectivity"); Goldman, *Search Engine Bias*, *supra* note __, at 118 ("[S]earch engines cannot simply passively and neutrally redistribute third-party content."). Goldman, *Revisiting Search Engine Bias*, *supra* note __, at 107 ("[N]eutral search engines . . . are entirely mythical.")

A third point of disagreement is also revealing: competition. Conduit theorists describe the search market as concentrated and hard to break into,[113] so that Google in particular has substantial market power.[114] Most Internet users find information through search engines.[115] Search users are overwhelmingly likely to follow links on the first page of results and overwhelmingly more likely to follow links near the top of that page.[116] The result is that search engines are therefore "gatekeepers" or "bottlenecks" on the Internet,[117] so that websites are utterly dependent on search engines.[118] A website that drops in search rankings is "effectively 'disappeared' from the Internet."[119]

The editor theory takes a very different view of competition in the search market.[120] In a phrase that Google has made a mantra, "Competition is one click

---

[113] *Google Under the Antitrust Microscope*, *supra* note __, at 30–31; Bracha and Pasquale, *supra* note __, at 1180–86. *See generally* FAIRSEARCH, UNTITLED FACT SHEET 1, http://www.fairsearch.org/wp-content/uploads/2011/06/Draft-Core-FairSearch-Fact-Sheet-051812.pdf (collecting sources).

[114] *See, e.g.*, Mark R. Patterson, *Google and Search Engine Market Power* (Fordham Law Legal Studies Research Paper No. 2047047, Apr. 27, 2012), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2047047.

[115] *See* Laidlaw, *supra* note __, at 126 (search engines are "indispensible").

[116] *See* Bing Pan et al., *In Google We Trust*: *Users' Decisions on Rank, Position, and Relevance*, 12 J. COMP. MEDIATED COMM. art. 3 (2007), http://jcmc.indiana.edu/vol12/issue3/pan.html; Bernard J. Jansen et al., *Determining the Informational, Navigational, and Transactional Intent of Web Queries*, 44 INFO. PROC. & MANAG. 1251 (2008).

[117] *See, e.g.* Elkin-Koren, *supra* note __, at 180 ("the new gatekeepers of cyberspace"); FAIRSEARCH, GOOGLE'S TRANSFORMATION FROM GATEWAY TO GATEKEEPER: HOW GOOGLE'S EXCLUSIONARY AND ANTICOMPETITIVE CONDUCT RESTRICTS INNOVATION AND DECEIVES CONSUMERS 11 (2011); Bracha and Pasquale, *supra* note __, at 1150–51 ("Located at bottlenecks of the information infrastructure, search engines exercise extraordinary control over data flow in a largely decentralized network.").

[118] *See, e.g.*, Grimmelmann, *Some Skepticism*, *supra* note __, at 448 n.85 (collecting examples); *Google Under the Antitrust Microsceope*, *supra* note __, at 7–13 (collecting European examples); Introna and Nissenbaum, *supra note* __ at 180; Elkin-Koren, *supra* note __, at 185 ("If you are not listed in the search results you are almost nonexistent on the web."); Pasquale, *Asterisk Revisited*, *supra* note __, at 79 ("make-or-break power over internet-based businesses"); Written Testimony of Thomas O. Barnett, "The Power of Google: Serving Consumers or Threatening Competition?" Hearing of the Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights, Sept. 21, 2011, at 4 ("And to be found by consumers, particularly for new sites, a website needs the ability to appear at or near the top of the results displayed by a search engine.").

[119] *See, e.g. Foundem's Google Story*, SEARCHNEUTRALITY.ORG (Aug. 18, 2009), http://www.searchneutrality.org/eu-launches-formal-investigation/foundem-google-story. *See also* Introna and Nissenbaum, *supra* note __, at 180 (search engines wield power over websites in "making others, essentially, disappear."). A related idea is that Google is a "killer." *See* Katz, *supra* note __ ("brand killer"); Stoppelman Testimony, *supra* note __ ("I wonder if we would have been able to start Yelp today given Google's recent actions.").

[120] *See* Goldman, *Search Engine Bias*, *supra* note __, at 119–20.

away."[121] It emphasizes the existence of multiple search options,[122] low user switching costs to change search engines,[123] consumers' regular use of multiple search engines,[124] the entry of new specialized search engines,[125] and competition from other platforms like Twitter and Facebook.[126] These points are designed to emphasize that users have broad and meaningful choice in how they find websites, and that Google is far from the only way that websites can be found.[127] Indeed, it is common to see arguments that websites should be careful not to become too dependent on the traffic from any given search engine; if they do, they have only themselves to blame.[128]

III. THE ADVISOR THEORY

The conduit and editor theories are not wrong. They are merely incomplete. Each has valuable insights about the nature of search, insights unique to the vantage points they adopt. The conduit theory looks at search through websites' eyes. The editor theory looks at search through search engines' eyes. But we also can and should ask what search would look like through users' eyes.

Section A introduces the idea that users turn to search engines for advice to help them decide among websites. Section B gives a normative account of why we should prefer this user-centric take on search. Section C translates this high-level theory into a pair of policy prescriptions. And Section D considers some limits on the advisor theory.

---

[121] *Competition*, GOOGLE U.S. PUBLIC POLICY, http://www.google.com/publicpolicy/issues/competition.html; Schmidt Testimony, *supra* note __, at 6; Adam Kovacevich, *Google's Approach to Competition*, GOOGLE PUBLIC POLICY BLOG (May 8, 2009), http://googlepublicpolicy.blogspot.com/2009/05/googles-approach-to-competition.html.

[122] *See, e.g.*, Volokh and Falk, *supra* note __, at 26.

[123] *See, e.g.*, *id.* 19–20.

[124] *See, e.g.*, Schmidt Response, *supra* note __, Response to Sen. Grassley 1; Ammori and Pelican, *supra* note __, at 11.

[125] *See, e.g.*, Goldman, *Search Engine Bias*, *supra* note __, at 120.

[126] *See, e.g.*, Goldman, *Revisiting Search Engine Bias*, *supra* note __, at 99–100.

[127] *See, e.g.*, Schmidt Testimony, *supra* note __, at 3–4.

[128] *See, e.g.*, Defence, Infederation Ltd. v. Google Inc, No. HC12A02489, EWHC (Ch) ¶ 15.2, (Oct. 23, 2012) ("Google cannot be held responsible for Foundem's choice of business model. Foundem, at its own risk, appears to have developed a business model that depends on its appearing high in search results.); Search King, Inc. v. Google Tech., Inc., No. CIV-02-1457-M, 2003 BL 1897, at *7 (W.D. Okla. Jan 13, 2003) ("SearchKing consciously accepted the risk of operating a business that is largely dependent on a factor (PageRank) over which it admittedly has no control."); Danny Sullivan, *Penguin's Reminder: Google Doesn't Owe You a Living, So Don't Depend on It*, MARKETING LAND (May 1, 2012), http://marketingland.com/penguin-google-doesnt-owe-you-a-living-10968; *see also* Grimmelmann, *Some Skepticism*, *supra* note __, at 447–48 (questioning websites' entitlement to traffic from search engines).

A. Search Results As Advice

Over half a century ago, Vannevar Bush described the vast informational universe we now inhabit:

> Thus far we seem to be worse off than before—for we can enormously extend the record; yet even in its present bulk we can hardly consult it. This is a much larger matter than merely the extraction of data for the purposes of scientific research; it involves the entire process by which man profits by his inheritance of acquired knowledge. The prime action of use is selection, and here we are halting indeed. There may be millions of fine thoughts, and the account of the experience on which they are based, all encased within stone walls of acceptable architectural form; but if the scholar can get at only one a week by diligent search, his syntheses are not likely to keep up with the current scene.[129]

For centuries, the idea that there is simply too much information in the world has been a persistent source of anxiety.[130] What is new in the age of the Internet is the sheer scale of the problem. In 2011, humanity created and stored nearly two zettabytes.[131] The web contains over a trillion different webpages.[132] The world has over two billion Internet users, *every single one of whom* is a potential speaker.[133] If you want to listen to them all in this lifetime, you have less than one second each—assuming you do not stop to sleep or eat. We live in Borges's Library of Babel.[134] Information itself is a good: the world would not be better off if there were far less of it. Rather, the problem is that the ratio of information to our ability to make use of it has grown beyond all proportion.

This is a matching problem; the billions of speakers and billions of listeners in the world need ways to decide who speaks to whom at any given moment. We can approach it in two fundamentally different ways. One would be to try to identify the best information sources and make sure they can be heard through the

---

[129] Vannevar Bush, *As We May Think*, ATLANTIC MONTHLY (July 1945).

[130] For histories of attempts to grapple with the problem, see, e.g., JAMES GLEICK, THE INFORMATION: A HISTORY, A THEORY, A FLOOD (2012); ANN BLAIR, TOO MUCH TO KNOW: MANAGING SCHOLARLY INFORMATION BEFORE THE MODERN AGE (2011); ALEX WRIGHT, GLUT: MASTERING INFORMATION THROUGH THE AGES (2007).

[131] EMC DIGITAL UNIVERSE STUDY: EXTRACTING VALUE FROM CHAOS (2011).

[132] Jesse Alpert & Nissan Hajaj, *We Knew the Web Was Big . . .*, GOOGLE BLOG (July 25, 2008), http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html.

[133] INTERNET WORLD STATS (last updated June 30, 2012) (estimating 2,405,518,376 Internet users), http://www.internetworldstats.com/stats.htm

[134] *See* Grimmelmann, *Library of Babel*, supra note __ (giving extended metaphor of the Internet as Borges's infinite Library).

cacophony. In their different ways, this is the approach taken by the conduit and editor theories. The conduit theory worries that valuable and deserving speakers will be drowned out unless they have search engines' help. The editor theory sets up search engines as experts in identifying the best and most useful information. Both are speaker-oriented: they try to solve the problem of noise by amplifying good speech.

The alternative is listener-oriented: we could try to empower users to identify for themselves the speech they wish to hear. An engineer would say that you can improve the signal-to-noise ratio by using either a more powerful transmitter or a more sensitive receiver. From a listener-oriented perspective, then, a search engine is a tool for choosing which websites to listen to.

Indeed, out of all the ways that speakers and listeners can find each other, search is the single most listener-directed. The entire point of consulting a search engine is that the user specifies her own interests—not someone else's—in the search query and receives results relating to those interests. A search engine that responds to `[apple macbook]` and `[occupy cleveland]` and `[stupid cat tricks]` with the same list of results has failed of its essential purpose. And users bring a truly remarkable range of interests to search engines. Compare a hundred-channel cable system, or even a million-volume research library, with the four hundred and fifty *billion* distinct search queries that Google has answered.[135]

The crucial technological feature is interactivity. Unlike a radio dial or a telephone directory, a search engine is not presented to users as a static artifact. Instead, search results are generated "on the fly," in response to a user's specific query, in a matter of milliseconds. Having hired the search engine once to carry out a search, the user may decide to hire it again to perform a related one. She can refine her query by entering modified or additional keywords, seeing how this changes the results. And when she is satisfied with the search engine's suggestions, she goes off to a website or websites to attend to their speech.

On this view, search results are advice: suggestions about which websites the user should consult. Calling search engines advice-givers synthesizes the insights of the conduit and editor theories. The ultimate goal of search, as the conduit theory explains, is to connect websites and users. Search engines can advance this goal, as the editor theory explains, by expressing judgments about websites. It is only from the user's point of view that these two functions are not opposites but two sides of the same coin. Search engines connect websites and users *by* expressing judgments about websites.

---

[135] *See Welcome to Under the Hood*, GOOGLE INSIDE SEARCH (Jan. 28, 2011), http://www.google.com/insidesearch/playground/underthehood.html.

This characterization suggests a third normative theory for evaluating search: a search engine should be a helpful, trustworthy *advisor*. An ideal advisor would have several important characteristics. It would adopt the user's goals and preferences, rather than having an agenda of its own. It would be perfectly omniscient; if the sought-after information exists at all, the advisor would know where that information is. The advisor would work quickly and cheaply. And having identified the information the user seeks, the advisor would step aside and let the user make her own decisions about what to do with it.

B. Active Listening

The advisor theory has two basic commitments. First, it puts users' interests first, rather than websites' or search engines': the goal of search is to help *users* find what they seek. And second, it defers to users' choices in defining those interests: the goal of search is to help users find what *they* seek. What is so attractive about a world that gives users this capability? A great deal. It is a world of *active listeners* who are capable of exercising autonomous self-directed control over their information diets.[136] They seek out the speech they wish to hear and avoiding the speech they wish to ignore. The world is better off for it, because the shift to active listening advances the values we care about. It promotes autonomy, equality, diversity, and a wide range of efficiency-oriented substantive legal goals.[137]

First, and most importantly, putting search users first promotes autonomy. The freedom to act in the world requires what Michael Zimmer calls "intellectual mobility" defined as "the freedom to learn new things, explore new ideas, adapt, and change one's thoughts and beliefs in order to grow and develop intellectually as an individual."[138] To make self-directed decisions about your life, you need information about the world, about different values and perspectives, and about dif-

---

[136] *Cf.* Joseph P. Liu, *Copyright Law's Theory of the Consumer*, 44 B.C. L. REV. 397, 406–11 (2003). Liu focuses on how listeners engage with speech once they know about it and have some measure of access to it; our focus here is on how listeners find that speech in the first place.

[137] This Section attempts, so far as possible, to rest these arguments purely on listeners' interests *as listeners*, rather than on their interests as future speakers. Like Laplace, it has no need of that hypothesis.

[138] Michael Zimmer, *The Quest for the Perfect Search Engine: Values, Technical Design, and the Flow of Personal Information in Spheres of Mobility* (unpublished PhD dissertation, NYU 2007).

ferent ways of living.[139] A farmer cares about `[sorghum yield improvement]`; a questioning teen about `[ways to tell if your gay]`. For them, and for all of us, knowing enough can make the difference between success and failure, fulfillment and misery.. But very little of this information will come to them: they must go in search of it. The ability to "seek" information is so fundamental it is recognized in the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights.[140] Selection enters because it is not sufficient to sit the farmer and the teen down at a keyboard and tell them to have at it. Mere access to information is useless without the effective ability to sort through it.

In particular, empowering users with search protects their autonomy from coercion and manipulation.[141] The editor theory depends on search engines to know what is best for users; the conduit theory depends on websites to do the same. But users themselves are better placed to know what they want and need than anyone else is. A false claim to have the "lowest propane prices in town!" only works on those who can't search for `[lowest propane prices in town]`; a woman seeking `[abortion information]` will be offered more useful information and a wider range of options if she uses a search engine than if she calls the number on a "Pregnant? Need Help?" billboard.

A second major virtue of widespread access to search is informational equality. First, there is equality among users: egalitarian access to knowledge re-

---

[139] *See* Yochai Benkler, *Siren Songs and Amish Children: Autonomy, Information, and Law*, 76 N.Y.U. L. REV. 23, 55 (2001). For other listener autonomy justifications of free speech protections, see, e.g., David A. Strauss, *Persuasion, Autonomy, and Freedom of Expression*, 91 COLUM. L. REV. 334, 355 (1991); David A.J. Richards, *Free Speech and Obscenity Law: Toward a Moral Theory of the First Amendment*, 123 U. PA. L. REV. 45, 62 (1974); T.M. Scanlon, *A Theory of Freedom of Expression*, 1 PHIL. & PUB. AFF. 204, 209 (1972); Richard H. Fallon Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875, 878 (1994); Caroline Mala Corbin, *The First Amendment Right Against Compelled Listening*, 89 B.U. L. REV. 939 (2009); Marc Jonathan Blitz, *Constitutional Safeguards for Silent Experiments in Living: Libraries, The Right to Read, and a First Amendment Theory for an Unaccompanied Rights to Receive Information*, 74 UMKC L. REV. 799 (2006); Eugene Volokh, *Freedom of Speech in Cyberspace from the Listener's Perspective*, 1996 U. CHI. LEGAL F. 377.

[140] Universal Declaration of Human Rights, art. 19, G.A.Res. 217A, U.N. GAOR, 3d Sess., 1st plen. mtg., U.N. Doc. A/810 (Dec. 12, 1948); International Covenant on Civil and Political Rights, art. 19(2), G.A. res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, entered into force Mar. 23, 1976. *See generally* Molly Land, *Toward an International Law of the Internet*, 54 HARV. INT. L.J. (forthcoming 2013) (discussing the history and interpretation of these provisions of the UDHR and ICCPR).

[141] *See* JOSEPH RAZ, THE MORALITY OF FREEDOM 377–78 (1986) (discussing coercion and manipulation as constraints on independence); Benkler, *Siren Songs*, *supra* note __, at 38–49 (discussing role of information environment in limiting or promoting autonomy).

quires something like search.[142] If Affluent Amy has a personal lactation consultant on retainer while Backwoods Barbara is fifteen miles from the nearest doctor, it goes a long way toward making up the difference if they both can search for `[is it safe to breastfeed on sudafed]`.[143] Then, there is equality between listeners and speakers. The capacity to listen is distributed far more evenly than the capacity to speak.[144] There are billionaires, but no one has a billion ears. Disparities in wealth drop away when matching is controlled by user interest rather than by who can flood the airwaves with the most pervasive advertising.

Third, equality of access plus individual autonomy equals diversity. It is precisely because people have wildly diverging needs, capabilities, values, preferences, worldviews, and life experiences that the individuation of search matters. A parent worrying about `[minor child bail eligibility]` has vastly different informational needs than a recent arrival in town looking for `[thai groceries in fresno]`. A fifth of the queries Google sees each day are new: *no one else* has ever used the same combination of terms.[145] The development of personalized and social search is not just a means towards "better" results, it is also a way of accommodating diversity of user interests. One man's noise is another man's signal; delegating to users the decision of what to search for lets them make different decisions. Search also promotes diversity on the level of groups rather than individuals: it facilitates the development of minority and micro-minority viewpoints like `[dont drone me bro]`, `[baha'i homeschooling]`, and `[pine-aloma support group]`, because it helps people with shared interests find each other.

Finally, putting good search in users' hands advances other substantive legal goals. Numerous bodies of law lay claim to regulate the search process.[146] But in many cases, these bodies' own normative frameworks start from the perspective of consumers at large—that is, from the perspective of search users. Copyright law is designed to "advance public welfare through the talents of authors"[147] by offering a "reward to the author or artist [that] serves to induce release to the pub-

---

[142] On access to knowledge and distributive values, see Lea Shaver, *The Right to Science and Culture*, 2010 WIS. L. REV. 121.

[143] The answer is yes, Sudafed is safe for the baby—but nursing mothers may want to avoid it anyway, as it can cause irritability and decrease milk production. *See Pseudephedrine*, LACDMED: DRUGS AND LACTATION DATABASE (Nat'l Lib. of Med. last updated Oct. 2, 2012), http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT (search for "sudafed.").

[144] *See* Eugene Volokh, *Cheap Speech and What It Will Do*, 104 YALE L.J. 1805, 1834–41 (discussing comparative empowerment of listeners in digital environment).

[145] *Welcome to Under the Hood*, *supra* note __.

[146] *See* Grimmelmann, *The Structure of Search Engine Law*, *supra* note __, at 15–51 (detailed thirteen such bodies of law).

[147] Mazer v. Stein, 347 U.S. 201, 219 (1954).

lic of the products of his creative genius."[148] Good search ensures that authors and publishers actually face the incentive that copyright wants them to face: public demand for their work. Trademark is designed to minimize minimize consumer search costs—that is, to make users maximally effective at finding the goods and services they seek.[149] Antitrust law focuses on consumer welfare.[150] And so on. In each case, adopting users' point of view aligns our understanding of search with our other goals for search policy.

This is admittedly an idealized portrait of search. The search engines we have today deviate from it in many respects. The discussion of the conduit and editor theories above illustrates some of the numerous ways in which search engines fall short, and we shall see some further examples below. They are less than fully helpful for many searches, and entirely unhelpful for some. The consequences fall unevenly and not always visibly on users and websites. But for all that, it is still a worthy ideal, and the closer we can bring search engines to it, the better off users will be. The question is how.

C. Access and Loyalty

"The perfect search engine would be like the mind of God," capable of anticipating a user's needs and satisfying them before the user can even think to ask.[151] But like divinity, perfect search is unattainable in this life. Instead, the legal system must deal with the institutional framework of search as it is and could be. Law typically responds in two ways when it comes across an advice-giving relationship. One the one hand, it tries to ensure that people have *access* to advisors. And on the other, it tries to ensure that people can expect *loyalty* from their advisors. Both principles apply here: users need search engines, and they need to be protected from search engines.

1. Access

Little more need be said about why access is an important value for users. Instead, the question is what law can do to promote it. The answer has both negative and positive dimensions.

On the negative side, some kinds of regulation obviously threaten access. German law prohibits Holocaust denial; Thai law prohibits insulting the king. Google frequently removes links to these and many other kinds of content when

---

[148] United States v. Paramount Pictures, 334 U.S. 131, 158 (1948).

[149] William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J. L. & ECON. 265 (1987).

[150] *See* Nat'l Coll. Athletic Ass'n v. Bd. of Regents of Univ. of Okla., 468 U.S. 85, 107 (1984).

[151] Charles Ferguson, *What's Next for Google*, TECH. REV., Jan. 1, 2005, at 38, available at http://www.technologyreview.com/web/14065/ (quoting Sergey Brin, co-founder of Google).

ordered to do so by local authorities.[152] These deletions directly inhibit users' ability to seek out the information they seek. The German government doesn't let users make up their own minds about the Holocaust; the Thai government doesn't let them decide whether its monarchy is worth of respect. When Baidu blocks searches for information on Falun Gong at the Chinese government's behest, it interferes not just with users' religious freedom, but with a basic precondition of that freedom.

Even when the government stops short of deleting or dictating search results, its regulations can still threaten access. If search engines weren't allowed to use location information out of privacy concerns, they couldn't direct users to local businesses rather than ones halfway around the world. The same applies to any signal in search engines' repertoire: limiting its use potentially degrades the quality of advice users receive. Even seemingly collateral regulations can inhibit access. Advertising is the economic engine behind the modern search engine as we know it; if keyword advertising were illegal, we wouldn't have Google or Bing. Access therefore can have a libertarian valence: governmental regulation of search is problematic because it restricts users' ability to consult the search engines they might have preferred.

Positively, access can also have a liberal valence: the government should take steps to ensure that users are affirmatively able to make use of good and diverse search engines, helping to provision them if the market falls short.[153] Law has it its disposal the usual tools of information policy: government subsidies, effective competition policy, good technical and legal infrastructure, education, and so on. The choice among these tools is a matter of praxis, context, and culture. There are many roads to relevance. From the user's point of view, it does not matter whether relevant search results are provided by government-subsidized academic research, by a dominant incumbent with the resources to invest heavily in product development, by a Schumpeterian succession of innovative search paradigms, or by cutthroat price and feature competition among multiple search engines. Which of these will work best—and what technology and competition policy will best promote it—is an empirical question. What is good for Google might be good for users, or it might not.

---

[152] *See generally* GOOGLE TRANSPARENCY REPORT, http://www.google.com/transparencyreport/.

[153] For a particularly ambitious, comprehensive, and inspiring statement of this form of access, see SIVA VAIDHYANATHAN, THE GOOGLIZATION OF EVERYTHING (AND WHY WE SHOULD WORRY) 204–10 (2011) (describing a proposed "Human Knowledge Project" that would be "open, public, global, multilingual, and focused").

2. Loyalty

There is an inescapable information asymmetry between users and search engines. No one setting out on a journey of enlightenment knows what lies at the end of the road—if she did, there would be no need of the journey. The user knows more about what she wants, whether it be `[free online calculus practice questions]` or `[brinty spiers topless]`, but the search engine knows far more about whether anyone has put practice questions online and where those Britney Spears pictures are.[154]

This creates a distinctive possibility for disloyalty. If I search for `[discount dingos]` and the search engine tells me about OtterWorld and CapybaraCentral but not DingoMart, it has frustrated my dingo-related goals. Perhaps worse, if the search engine directs me to DingoBarn because it earns an undisclosed 5% commission on referrals, it has abused my trust to enrich itself.[155] It is precisely because the search engine knows more than I do about websites that it can can hide what it knows from me, or deliberately steer me to sites that serve its goals, not mine. Economically, this is a principal-agent problem. I cannot fully trust the search engine to exert itself fully on my behalf, because I am not fully capable of monitoring it. The asymmetry is hard-wired into search; it is not possible to imagine the user-search engine relationship without it.[156]

Thus, the government can help searchers by taking action against search engines that deceive, manipulate, or coerce users. Loyalty might, as the editor theory predicts, arise purely from competition among search engines. But where loyalty does not come about on its own, law can step in to ensure that it does.

The body of law most clearly concerned with problems of disloyalty is fiduciary law, which monitors trustees, guardians, doctors, corporate directors, and others who "enjoy[] discretionary power over the significant practical interests of another" within a particular domain.[157] The case for applying fiduciary concepts

---

[154] *Cf.* Julie E. Cohen, *The Place of the User in Copyright Law*, 74 FORDHAM L. REV. 347, 349 (2005) (developing theory of the "situated user" whose "patterns of consumption and the extent and direction of her own authorship" are incompletely formed when she engages with works, and are "shaped and continually reshaped by the artifacts, conventions, and institutions that make up her cultural environment"). Although active listening and the advisor theory ascribe a greater degree of agency to users than Cohen does, they share with her the idea that users are engaged in a process of self-development.

[155] *Cf.* 16 C.F.R. § 255.5 (requiring disclosure of any "connection between the endorser and the seller of the advertised product that might materially affect the weight or credibility of the endorsement").

[156] *See* Mark Patterson, *Non-Network Barriers to Network Neutrality*, 78 FORDHAM L. REV. 2843, 2860 (2010).

[157] Paul J. Miller, *A Theory of Fiduciary Liability*, 56 MCGILL L.J. 235, 262 (2011).

to search engines has two parts: finding a fiduciary relationship and specifying the fiduciary duties that relationship entails.

Search engines are not on the list of traditional fiduciaries, but the list is not closed. Some courts have recognized spouses as fiduciaries for each other[158] and we are undergoing something of an academic fiduciary renaissance, with scholars arguing for the thinking of legislators,[159] judges,[160] and even friends[161] as fiduciaries. The common themes of fiduciary relationships are dependence, trust, and vulnerability.[162] The search engine provides a valuable service from a position of superior knowledge and superior skill; the user provides it with valuable and often sensitive information, trusting in it to provide suggestions consistent with her interests.[163] Search engines resemble lawyers[164] and investment advisors, both of whom give advice to their clients and are regarded as fiduciaries when they do.[165]

A useful source for fleshing out the relevant fiduciary duties is agency law.[166] Search engines are probably not agents as such: an agent undertakes to "act on the principal's behalf and subject to the principal's control" and a search engine does not typically deal with others on the user's behalf, nor does the user have control over the indexing and ranking process.[167] But the portions of agency law that deal with an agent's duties to its principal are instructive. An agent owes a fundamental duty "to act loyally for the principal's benefit," a duty encompassing fidelity, care, confidentiality, and disclosure.[168] Thus, we might say that a search engine must not let its own conflicts of interest shape the results it gives a user;[169] must not deliberately underplay its hand in returning results it knows not to be

---

[158] *E.g.*, Dunkin v. Dunkin, 986 P. 2d 706, 711–12 (Or. Ct. App. 1999).

[159] *E.g.*, D. Theodore Rave, *Politicians as Fiduciaries*, 126 HARV. L. REV. 671 (2013).

[160] Ethan J. Leib et al, *A Fiduciary Theory of Judging*, 101 CAL. L. REV. (forthcoming 2013).

[161] Ethan J. Leib, *Friends as Fiduciaries*, 86 WASH. U. L. REV. 665 (2009).

[162] *See, e.g.*, Tamar Frankel, *Fiduciary Law*, 71 CALIF. L. REV. 795, 810 (1983).

[163] *See* VAIDHYANATHAN, *supra* note __, at 59.

[164] *See* MODEL RULES OF PROFESSIONAL CONDUCT 1.1 (duty of competence), 1.3 (duty of diligence), 1.4 (duty of communication and informed consent), 1.6 (duty of confidentiality).

[165] *See* 15 U.S.C. § 80-b-6.

[166] *Cf.* Mark Patterson, On the Impossibility of Information Intermediaries (Fordham L. & Econ. Res. Paper No. 13), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=276968.

[167] *See* RESTATEMENT (THIRD) OF AGENCY § 1.01.

[168] *See id.* ("duty to act loyally for the principal's benefit in all matters connected with the agency relationship"

[169] *See id.* § 8.02 ("duty not to acquire material benefit from a third party)"; *id.* § 8.03 (duty not to act adversely to principal);

relevant;[170] must not misuse the sensitive search queries she supplies it with;[171] and must not conceal important facts about how it generates search results.[172] All of these duties can be waived with the user's consent, but that consent must be both informed and obtained in good faith.[173]

Another source of inspiration is the law of commercial speech. It is protected under the First Amendment—but is also subject to regulations to protect listeners from deception. Government cannot prohibit advertising in general, but it can act against false and misleading advertising.[174] Search results are not themselves commercial speech.[175] But the structure of commercial speech law is listener-oriented; it is protected at all and to the extent that listeners have an interest in receiving it.[176] Hence that protection terminates when the speech is designed not to inform the listener but to mislead her.[177]

Transparency is a crucial aspect of loyalty. On one level, proper disclosures can defuse almost any deception. But on a deeper level, transparency is also profoundly helpful in enabling users to understand what it is they are getting from a search engine and how to use it effectively.. Google's *Inside Search* blog, which posts discussion of algorithmic additions and describes how Google goes about creating

---

[170] *See id.* § 8.08 ("If an agent claims to possess special skills or knowledge, the agent has a duty to the principal to act with the care, competence, and diligence normally exercised by agents with such skills or knowledge.")

[171] *See id.* § 8.05(2) (duty "not to use or communicate confidential information of the principal for the agent's own purposes or those of a third party").

[172] *See id.* § 8.11 ("An agent has a duty to use reasonable effort to provide the principal with facts that the agent knows, has reason to know, or should know when . . . . the facts are material to the agent's duties to the principal.").

[173] *See id.* § 8.06 ("Conduct by an agent . . . does not constitute a breach of duty if the principal consents to the conduct, provided that (a) in obtaining the principal's consent, the agent (i) acts in good faith, (ii) discloses all material facts . . . and (iii) otherwise deals fairly with the principal . . . .").

[174] *See* Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n of NY, 447 U.S. 557 (1980).

[175] The most commonly-used definition of "commercial speech" is that it "proposes a commercial transaction." Board of Trustees of State Univ. of N.Y. v. Fox, 492 U.S. 469, 482 (1989). That a search result does not do. It directs a user to a website. Some of those websites will propose commercial transactions when the user arrives; others will have purely social, educational, cultural, or political messages. In none of these cases does the search engine itself propose a further transaction. The fact that search engines are advertising-supported changes nothing. The advertisements are commercial speech, but the organic results they support are not. Newspapers are advertising-supported, too, but their editorial content is not commercial speech. Nor does it matter that the act of searching is itself arguably a commercial transaction. The search is commercial, but the search results are not. A newsstand engages in commercial transactions all day, but the magazines it sells are not commercial speech.

[176] *See* 44 Liquormart, Inc. v. Rhode Island, 517 U.S. 484, 495–99 (1996).

[177] *See* Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 638 (1985).

search results, is hardly full and complete transparency, but is certainly a significant start.

3. Access and Loyalty Compared

In one sense, loyalty is merely a component of access: search should be faithful to users' goals, just like it should be be fast, comprehensive, and inexpensive. But loyalty is also in tension with access, because the possibility of disloyal search implies that sometimes bad search can be worse than no search at all.[178] The legal interventions needed to ensure loyalty may sometimes have the effect of foreclosing a technical or business model of search. Access alone might have no problem with CorruptConcierge.com, which takes bribes from restaurants to boost their rankings and conveniently "forgets" to tell users—but loyalty surely would.[179]

Access and loyalty are not binding legal rules. They are, rather, "midlevel principles" that mediate between the pluralist normative commitments described above and the nitty-gritty of particular controversies.[180] No law is prohibited because it violates access or mandatory to ensure loyalty. Appeals to access and loyalty help us think through the consequences of search engine practices, and help us devise legal strategies to push those practices in the direction of users' interests.

D. Limits of the Advisor Theory

So far we have treated search users like the wise child at the Passover seder, asking good questions and receiving meaningful answers. But what if they are more like one of the other three children: wicked, foolish, or simple? If so, the advisor theory's basic commitments—putting users' interests first and deferring to their self-definitions of those interests—may fail to hold. These are all serious concerns, as we shall shortly see; the advisor theory alone cannot fully address them. But—and this is crucial—neither can the conduit and editor theories. Indeed, they have much less to say, and they systematically obscure the issues at stake when we try to shape search to serve public rather than private values. The advisor theory is a good first-order approximation, even if taking more systemic concerns into account will add x^2, x^3, and other higher-order terms.

---

[178] Transparency poses particularly complicated challenges. It can advance access by teaching search literacy, but it can also inhibit access by allowing search engine optimizers to degrade the quality of search rankings by cheating their way to the top. *See* Grimmelmann, *Structure of Search Engine Law*, *supra* note __, at 55–56.

[179] *Cf.* Chi-Chu Tschang, *The Squeeze at China's Baidu*, BUSINESSWEEK, Dec. 31, 2008, http://www.businessweek.com/magazine/content/09_02/b4115021710265.htm (alleging that Chinese search engine Baidu directly retaliates against sites that refuse to buy sponsored links by demoting them in its organic rankings).

[180] *See generally* ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY (2011) (developing theory of midlevel principles for intellectual property law).

First, there is the wicked child, who searches for `[how to build an h-bomb]`, `[downtown abbey download episodes free]`, `[chelsea clinton sex tape]`, or `[kill all the jews]`. These search results hurt people: invading their privacy, infringing their copyrights, promoting violence against them, and so on. There is a pattern here. The people who are harmed by these results are outsiders to the search relationship.[181] From the perspective of websites, users, and the search engine that connects them, everything is going just fine. The conduit and editor theories lead to precisely the same conclusion as the advisor theory: there is no problem here.

But that is precisely the issue from the victim's perspective: for her, search works best when it works least. She has a point. We have copyright law, defamation law, child pornography law, privacy law, and other other kinds of information-limiting laws for good reasons. They already reflect a considered social judgment that some listeners—users—should be denied access to speech they would like to receive. So users have an interest in consulting search engines to help find information only where it is information of a sort they have a legitimate interest in receiving.

Next, there is the foolish child, who searches for `[guy hit in balls]`, `[dumbass video getting hurt]`, `[epic fail waterski]`, `[chainsaw accident]`, a thousand other variations on the same theme—and nothing else. This user is using search to seal herself off in a private informational bubble containing only humiliation and mutilation.[182] But society, the search for truth, and self-government all depend on dialogue and civic education. The user who searches for `[george bush evil]` or `[climate change is bs]` needs to be gently educated about different viewpoints; the user who searches for `[american idol]` needs to be gently educated, period.

The conduit theory and the editor theory, being speaker-oriented, cannot even rightly apprehend the nature of this objection. Bubbles trap listeners, not speakers. In contrast, the bubble argument shares a central premise with the advisor theory: users don't know what information is available when they seek it out. They also share a central goal: making users better-informed. The difference is that where the advisor theory sees each search as a step towards enlightenment, the the fear of bubbles sees users as trapped in a cycle of self-reinforcing ignorance.

---

[181] *See* Grimmelmann, *The Structure of Search Engine Law*, *supra note* __, at 33–44 (describing these as "third parties'" interests in search).

[182] *See* ELI PARISER, THE FILTER BUBBLE (2011); CASS SUNSTEIN, REPUBLIC.COM 2.0 (2007).

This is a difficult and much-debated subject, and a full discussion will need to await future work. For the moment, I will offer four brief thoughts. First, there is no guarantee that a majoritarian informational Pangaea is any better than a million informational islands: it all depends on the information actually exchanged.[183] If we are all just watching *America's Next Top Model*, little will have been gained. Second, there are reasons to think that the bubble argument is simply wrong: that people are interested in learning new things and in hearing about people who are different from themselves. Even a cursory glance at Twitter's trending topics and the viral video hits of the last five years suggests that there is a deep and abiding human taste for novelty, for serendipity, for the unfamiliar.[184] Third, the consequences of forcing search users to look at results they didn't ask for and don't want to see are dreadful. It turns users into Alex from *A Clockwork Orange*, forcibly subjected to high culture and unpleasant truths. This is a particular tragedy on the advisor theory, since the very point of search is that it can do so much more to enhance individual autonomy and personal development. And fourth, if the fear is a personalized search engine will wrongly extrapolating from a small sample of queries to trap the user in a bubble that distorts her preferences, the problem is disloyal search engines, not foolish users. Rather than being *too* user-directed, the speech environment is not user-directed *enough*. The best remedy for bad search is more search. One useful policy intervention might be to require that search engines must offer a non-personalized mode: a user must be able, at any time, to step outside her bubble by disabling the customized filters the search engine has created for her, and to receive generic, non-personalized results.

Finally, there is the simple child, who misunderstands search results. She searches for `[vaccination]` and treats Natural News ("Secret government documents reveal vaccines to be a total hoax") as authoritative because it was on Google; or for `[42 inch visio tv]` and assumes the first result must have the cheapest price it is first; or for `[obama muslim]` and doesn't scroll down far enough to find the Wikipedia entry. Studies have found that users trust search engines,[185] but also that they have woefully poor understandings of how search engines work. The combination is dangerous, because it causes overreliance on

---

[183] Indeed, one of the other common complaints about Google is that its ranking algorithms are *too* majoritarian and tend to reinforce existing disparities in popularity. *See* HINDMAN, *supra* note __, at 55–57 (discussing "theory of Googlearchy"). But it can't both be the case that search users are all looking at the same ten websites and that that they're all living in their own individual informational bubbles.

[184] *Cf.* A Lev-On, *The Democratizing Effects of Search Engine Use: Chance Exposures and Organizational Hubs*, in WEB SEARCH: MULTIDISCIPLINARY PERSPECTIVES 135, 138–41 (Amanda Spink & Michael Zimmer eds. 2008) (arguing that search engines "drive people to diverse and even opposing views").

[185] *See* Pan et al., *supra* note __.

search results. Instead of independently evaluating websites for themselves, users invest them with the search engine's authority.

Troublingly, Google shows every sign of wanting to push even further. As Eric Schmidt put it, Google wants to be able to answer questions like "What shall I do tomorrow?" or "What job shall I take?"[186] This is an autonomy-reducing relationship: even if the search engine is capable of satisfying users, it is no longer really helping them lead self-directed lives. [187] When a search engine usurps the user's core decision-making authority, it is hard not to describe the result as a serious violation of loyalty. Advice becomes a command; relevance gives way to something far more sinister. It is precisely for this reason that query-driven web search is better for autonomy than implicit recommendation systems like Facebook's selections of which stories from your friends to show you.[188]

A final concern is the growing importance of distributed, interactive, algorithmic processes in the sociotechnical coconstruction of meaning and authority. Choices made by programmers, publishers, and users feed back into each other recursively with emergent, systemic consequences. At present, we barely have the vocabulary to describe these processes, let along the theoretical frameworks to explicate them.[189] They are characterized by structures of information aggregation and distribution that are not necessarily intended or even comprehended by any of the contributors to those structures.

To the extent search engine law attempts to incorporate a more systemic perspective, neither the conduit theory nor the editor theory is much help. Both of them obscure the problem of algorithmic authority. The conduit theory upholds an impossible ideal of neutrality; it can tolerate algorithms only to the extent that it fully specifies their results, that is, not at all. The editor theory, by contrast, accepts whatever results from the marketplace's clash of algorithmic titans as an op-

---

[186] Caroline Daniel and Maija Palmer, *Google's Goal: To Organise Your Daily Life*, FIN. TIMES, May 22, 2007, http://www.ft.com/intl/cms/s/2/c3e49548-088e-11dc-b11e-000b5df10621.html.

[187] The best articulations of this fear come from science-fiction writers. *See* Ken Liu, *The Perfect Match*, LIGHTSPEED (Dec. 2012), http://www.lightspeedmagazine.com/fiction/the-perfect-match/; Tom Slee, *Mr. Google's Guidebook*, WHIMSLEE (Mar. 7, 2008), http://whimsley.typepad.com/whimsley/2008/03/mr-googles-guid.html.

[188] Thus, there are strong reasons to reject the convergence of search, advertising, and recommendation systems hailed by some commentators. *E.g.*, Hector Garcia-Molina et al., *Information Seeking: Convergence of Search, Recommendations, and Advertising*, COMM. OF THE ACM, Nov. 2011, at 121. They may be technically similar, but they are not normatively equivalent: one of them (search) is better than the others.

[189] A particularly useful survey of existing work and outline for future efforts is Tarleton Gillespie, *The Relevance of Algorithms*, in MEDIA TECHNOLOGIES (Tarleton Gillespie et al. eds, forthcoming).

timal outcome. The editor theory systematically refuses to look inside the algorithmic black box; the conduit theory smashes all such boxes to smithereens. The advisor theory, by contrast, accepts that we increasingly live in a world of algorithms and asks how well they serve the goals of their users. It offers no special insight into the workings of those algorithms, but it is prepared to engage with those insights when other theories offer them up. It is, at least, a place to start.

IV. SEARCH BIAS RECONSIDERED

Of the many controversial claims against Google, none are more controversial than the allegations of search bias. An early search bias lawsuit, *Search King v. Google*, is still a good example of the genre.[190] Search King alleged that Google reduced its PageRank—one of the most important signals used by Google to estimate a webpage's importance—from 8 to 4, causing a precipitous drop in its traffic from Google and a concomitant fall-off in business.[191] Search King sued for tortious interference with contractual relations, arguing that Google devalued it "after and because Google learned that [Search King] was competing with Google."[192]

Search King also shows what tends to happen to search-bias claims in court: they lose. Search King claimed that PageRanks were "objectively verifiable," but that Google changed them "purposefully and maliciously," rendering its conduct "wrongful" and harming Search King.[193] But Google responded, and the court agreed, that its ranking decisions were "fundamentally subjective," so that there was "no conceivable way to prove that the relative significance assigned to a given web site is false."[194] As a consequence, Google's search results were "constitutionally protected opinions," rendering them "immune from tort liability."[195] The conduit theory met the editor theory, and the editor theory won. But both approaches are too categorical. Search results are a mix of the objective and the subjective. It is not possible to classify them as exclusively one or the other.

---

[190] Search King, Inc. v. Google Tech., Inc., No. CIV-02-1457-M, 2003 WL 21464568 (W.D. Okla. May 27, 2003). For other notable search bias cases, see *supra* note __. This Part will restrict its attention to tort suits for misranking, rather than considering the whole range of possible regulations to prevent search bias. The application of the First Amendment to a tortious interference claim raises all of the essential issues. And the approach this Part endorses, in which the search engine's immunity turns on its good faith in answering users' queries, is broadly applicable to search bias issues, regardless of what doctrinal box they arrive packaged in.

[191] *Id.* at *1.

[192] *Id.* at *2.

[193] *Id.* at *2–*3.

[194] *Id.* at *4.

[195] *Id.*

Instead, a better approach to search bias is to look at rankings from users' point of view. When a search engine gives advice to users, it speaks; there is no way to understand the giving of advice without implicating speech's communicative function.[196] Moreover, a search engine's advice is socially valuable speech; we have seen an abundance of reasons why users as listeners would suffer if this speech could be suppressed. And Google is right that search results are a form of opinion. But it does *not* follow that they ought to be categorically protected by the First Amendment. Precisely because search results are valuable instrumentally rather than expressively, search results should be actionable where they deceive the users they are meant to inform. All of the interesting work, as we shall see, consists of explaining when it is that a search result is deceptive.

Section A explains how the advice in search rankings takes the form of opinions about relevance. Section B shows that the relevant doctrinal test is whether these opinions are false and made with sufficient fault. Section C then looks for falsity in search rankings, and (after a false start) finds it in subjective dishonesty about relevance, thereby satisfying fault as well. Section D argues that it makes no difference that search results are generated using computer algorithms rather than by hand. And Section E pulls these claims together to defend for the most part the Federal Trade Commission's handling of the search bias claims against Google.

A. Search Rankings Are Opinions About Relevance

The *sine qua non* of a search ranking is relevance. But what is relevance? The only reasonable answer is, "Ask a user."

Both the conduit and editor theories are frequently couched as appeals to relevance. Compare Google critic Adam Raff's demand that that search results should be "based solely on relevance"[197] with Google engineer Amit Singhal's insistence that Google's "algorithms rank results based only on what the most relevant answers are for users."[198] But neither theory can provide a usable definition of relevance, because they slide off into assessing it from someone else's point of view. Websites are not proper judges of relevance because for every website that gains in the rankings there is another that falls; each stands ready to argue that it is the more relevant. There is no way to break the tie between their competing claims without appealing to users' goals. To know whether DingoMart's fall from the first page of Google results is good or bad for search users, one must first know

---

[196] *See* Stuart Minor Benjamin, *Algorithms and Speech*, U. PA. L. REV. (forthcoming).

[197] Raff, *Search But You May Not Find*, *supra* note __.

[198] Amit Singhal, *Setting the Record Straight: Competition in Search*, GOOGLE PUB. POL. BLOG (June 8, 2012), http://googlepublicpolicy.blogspot.com/2012/06/setting-record-straight-competition-in.html.

whether users consider it more or less relevant than other dingo-themed websites. Nor are search engines proper judges of relevance. Here the problem is tautology, rather than indeterminacy. If "relevance" is a quality created by a search engine, then it is devoid of meaning.[199] Whatever website tops the results page for `[dingo]` is the most relevant, regardless of whether it has anything to do with dingos.

Instead, relevance is a concept that is only intelligible from users' point of view. Or rather, it is only intelligible from a user's point of view, with the apostrophe before the 's' and not after. Everyone has her own personal informational goals. These goals are different for each individual and they preexist the interaction with the search engine. From her perspective, a relevant search result is one that—in her sole and unappealable discretion—satisfies her standards of quality. An irrelevant result is one that does not. As one textbook explains:

> A human is not a device that reliably reports a gold standard judgment of relevance of a document to a query. Rather, humans and their relevance judgments are quite idiosyncratic and variable. But this is not a problem to be solved: in the final analysis, the success of an [information retrieval] system depends on how good it is at satisfying the needs of these idiosyncratic humans, one information need at a time.[200]

Thus, relevance is defined defined subjectively, by users, for themselves. But it does not follow that relevance is equally subjective from the search engine's point of view. It is not—or at least not in the same way.

But search engines face two problems in trying to satisfy users' subjective standards of relevance: the diversity of users with different intentions, and the difficulty of inferring intention from a bare search query. Google asserts that information about the Founding Farmers restaurant is the most relevant result for `[founding farmers]`. Perhaps it is, and many people would agree. But what about a user looking for a blog post from the Paris Review Daily reviewing a modern edition of Martha Washington's family recipe collection—a post entitled "The Founding Farmers"?[201] For some users, this post is more relevant than the restau-

---

[199] *Cf.* James Grimmelmann, *Three Theories of Copyright in Ratings*, 14 VAND. J. ENT. TECH. & L. 851, 876 (2012) (critiquing claim that expressive ratings are valuable simply because they are expressive).

[200] CHRISTOPHER D. MANNING ET AL., INTRODUCTION TO INFORMATION RETRIEVAL 165 (2008). *See also* Van Couvering, *supra* note __ ("'Really, it is the standard definition, which is, we are trying to answer people's questions. Period. Relevance is when we actually return something that answers their question.'" (quoting "Interviewee E"))

[201] Robin Bellinger, *The Founding Farmers*, PARIS REV. DAILY (Feb. 23, 2012), http://www.theparisreview.org/blog/2012/02/23/the-founding-farmers/.

rant's homepage. Other users may be looking for critical reviews of the restaurant or for amusing stories about its knowledgable but inattentive servers. A search result is not merely a prediction about a purely objective phenomenon, like the weather. It is also an attempt to guess at the desires of individual users, and hence it inherits the ambiguity of those desires.

Unfortunately for search engines, "It's complicated" is usually not an acceptable answer to a user's query. Search engines respond to the ambiguities of relevance in three stages: they measure users' satisfaction with search results,[202] they interpret those measurements to develop general theories of relevance, and they implement those theories in the algorithms that respond to users' queries.[203] Each stage introduces its own approximations. At the measurement stage, no focus group or A/B test is ever large enough to capture the preferences of every user in the world; even if it could, users would still misreport their long-term goals and click on promising-looking results that turn out to be worthless on further inspection. At the theorizing stage, the search engine must extrapolate from queries and webpages it has seen to ones it has not. Extrapolations are guesses; guesses can be wrong.. And at the implementation stage, each algorithmic tweak to improve relevance must be traded off against very real costs. There are fixed costs, incurred simply to program and test the tweak, and there are incremental costs, as each additional computation drives up power bills,[204] hardware purchases,[205] and user waiting times.[206] Different search engines use different tests, theories, and algorithms, and hence they deliver different search results.

Thus, search results are subjective from the search engine's point of view not because they express the search engine's beliefs and values, and not even because they express users' beliefs and values, but rather precisely because users' beliefs and values *cannot* be captured perfectly by any search algorithm on this imperfect earth. From a search engine's perspective, relevance judgments are predictions based on deductions based on observations of user behavior. They are, therefore, subjective approximations of objectively but imperfectly observable characteristics of subjective user preferences, implemented through the search engine's choices

---

[202] *See, e.g.* Udi Manber, *Introduction to Google Search Quality*, GOOGLE OFFICIAL BLOG (MAY 20, 2008), http://googleblog.blogspot.com/2008/05/introduction-to-google-search-quality.html; Andrew Orlowski, *Revealed: Google's Manual for Its Unseen Humans Who Rate the Web*, THE REGISTER, Nov. 27, 2012, http://www.theregister.co.uk/2012/11/27/google_raters_manual/.

[203] *See* Levy, *Rules the Web*, *supra* note __.

[204] *See* Xiabao Fan et al., *Power Provisioning for a Warehouse-Sized Computer*, 34TH ACM CONF. ON COMP. ARCH. (2007).

[205] *See* Luiz André Barroso et al., *Web Search for a Planet: The Google Cluster Architecture*, *in* SYNTHESIS LECTURES ON COMPUTER ARCHITECTURE 22 (2009)

[206] See Jake Brutlag, Speed Matters for Google Web Search (Google technical report June 22, 2009), http://services.google.com/fh/files/blogs/google_delayexp.pdf.

about its algorithms. It is these choices—disagreements about the most effective way to measure and implement relevance—that constitute the "opinions" in search.[207]

In his Senate testimony in September 2011, Google's Eric Schmidt seemed to further muddy the objective/subjective dichotomy when he called Google's rankings its "scientific opinion."[208] But this is actually a helpful way of thinking about search results, perhaps more so than Schmidt realized. Scientists generate deductive opinions; the norms of science scrupulously emphasize avoiding value judgments. Google studies the world, draws conclusions, and shares them with the public, just as scientists do.[209] Google is not "scientific" in the sociological sense that it publishes theories of relevance for peer evaluation. But it aspires to be "scientific" in the sense of the Federal Rules of Evidence's definition of "scientific . . . knowledge," which must be "based on sufficient facts or data" and" the product of reliable principles and methods" that are "reliably applied . . . to the facts."[210] Scientific opinions are subjective to the extent that reality is unknowable and scientists must forever make do with dueling hypotheses and insufficient data. But they are objective to the extent that they are based on reality and seek to describe the world as it is. Search results seek to answer the imperfectly answerable question of what users want.

In other words, a user's "opinion" about what she considers relevant and a search engine's "opinion" about what she will consider relevant are two quite different beasts. Let us call them "normative" and "descriptive" opinions, respectively.[211] A normative opinion is an expression of the speaker's personal tastes and values; it is wholly subjective. A descriptive opinion is a claim about

---

[207] As this point should make clear, these sorts of opinions about the best way to assess relevance are not by themselves the sort of "speech" the First Amendment is concerned with. I may have an opinion about the most effective way to mow my lawn; that does not mean that mowing my lawn is speech. If I explain to my neighbor my theory of lawnmowing, matters may be different—but there, it is the explanation, rather than the theory itself, that constitutes speech.

[208] Schmidt Response to Sen. Kohl at 14. *Cf.*, Dana Remus Irwin, *Freedom of Thought: The First Amendment and the Scientific Method*, 2005 WIS. L. REV. 1479 (discussing scholarship on the application of the First Amendment to scientific inquiry).

[209] Schmidt Testimony at 3 ("constantly experimenting").

[210] FED. R. EVID. 702.

[211] This distinction is similar to one drawn in W. Page Keeton, *Defamation and Freedom of the Press*, 54 TEX. L. REV. 1221, 1233–34 (1976) between "evaluative" and "deductive" opinions. Keeton's definition of "deductive" opinions, however, is inapt because he defines them in terms of how they are derived— they are "drawn as an inference from the existence of other facts"—rather than in terms of how they function as communicative acts—they make claims that are in theory subject to observation by others. Diane Zimmerman adds a third category: "[l]oose, figurative language." Diane Leenheer Zimmerman, *Curbing the High Price of Loose Talk*, 18 U.C. DAVIS L. REV. 359, 398 (1985). *See also* Wendy Gerwick Couture, *Opinions Actionable as Securities Fraud*, 73 LA. L. REV. (forthcoming 2013) (extending Keeton's distinction to securities law).

facts in the world; it is subjective in that it expresses the speaker's personal belief, but objective in that the belief is about a matter that exists independently of the speaker.[212] Evaluative opinions express the speaker's subjective experience; deductive opinions make objective claims about the world that are accessible to other observers.[213] Dale Peck's claim that Rick Moody is "the worst writer of his generation" is a normative opinion; [214] a forecaster's prediction that it will be 84° and sunny in Los Angeles is a descriptive opinion.[215]

Users have normative opinions about relevance, but search rankings are descriptive.[216] Google is not a book critic; it will link to Dale Peck's hatchet job of a review, but Google itself has no particular view about the truth of the matter asserted. Instead, the search engine takes the user's standard of relevance as given, and makes its best guess at which webpages meet that standard. They are descriptive opinions *about* normative opinions.

B. Falsity and Fault in Opinions

Saying that search rankings are "opinions" is only the start of the legal inquiry, not the end. Under the Supreme Court's opinion in *Milkovich v. Lorain Journal Co*, that a statement is labeled "opinion" is not conclusive on its First Amendment status.[217] *Milkovich* was a defamation case against a newspaper for a column saying that any "impartial observer, knows in his heart that [the plaintiffs] lied at the hearing after each having given his solemn oath to tell the truth."[218] The newspaper argued that the statement was protected as an "opinion," but the Supreme Court disagreed. There was no "wholesale defamation exemption for any-

---

[212] This discussion of the nature of "facts" passes over some significant epistemological difficulties. For a more sophisticated treatment of the distinction, see Robert C. Post, *The Constitutional Concept of Public Discourse: Outrageous Opinion, Democratic Deliberation, and* Hustler Magazine v. Falwell, 103 HARV. L. REV. 601, 656–61 (1990). For present purposes, nothing essential depends on this precision.

[213] *See* Ronald K. Chen, *Once More into the Breach: Fact Versus Opinion Revisited After* Milkovich v. Lorain Journal Co., 1 SETON HALL CONST. L. J. 331, 335 (describing what I call descriptive opinions as "speculation"); Post, *supra* note __, at 657 (explaining that "verifiable" statements are those for which "given enough time and effort, we would expect the claim to be confirmed or disconfirmed by a consensus of investigators.")

[214] Dale Peck, *The Moody Blues*, NEW REPUBLIC, July 1, 2002 (reviewing RICK MOODY, THE BLACK VEIL: A MEMOIR WITH DIGRESSIONS (2002)).

[215] *See generally* L.A. STORY (TriStar Pictures 1991).

[216] Some search engines appear to interject their own tastes and values, such as SeekFind, whose mission is "to provide God-honoring, biblically based, and theologically sound Christian search engine results in a highly accurate and well-organized format." SEEKFIND, http://www.seekfind.org/. But SeekFind is really just a vertical search engine in disguise. SeekFind is not trying to impose its own Christian standard of relevance on non-Christians; it is trying to satisfy Christian users' explicitly Christian standards of relevance.

[217] Milkovich v. Lorain Journal Co., 497 U.S. 1 (1990).

[218] *Id.* at 5.

thing that might be labeled 'opinion,'" and no need to divide statements into categories of "opinion" or "fact."[219]

Instead, the Court applied its usual First Amendment protections against defamation. A statement about a public figure on a matter of public concern by a media defendant "must be provable as false before there can be liability" and the defendant must have acted with actual malice, that is, "with knowledge of their false implications or with reckless disregard of their truth."[220] Thus, regardless of how they are labelled, statements that knowingly "imply a false assertion of fact" can be actionable.[221]

Milkovich thus directs us to ask two questions about opinions: do they make false assertions of fact, and if so, are they uttered with a sufficient degree of fault? *Milkovich* itself applied the *New York Times v. Sullivan* actual-malice standard to a statement by a media defendant about a public figure on a matter of public concern.[222] A lower standard of fault may apply in other cases: so in *Gertz v. Robert Welch*, the Court held that "so long as they do not impose liability without fault, the States may define for themselves the appropriate standard of liability" for an award of actual damages for a false statement by a media defendant about a private individual.[223] And in *Dun & Bradstreet v. Greenmoss Builders*, the Court allowed an award of presumed and punitive damages for a false statement on a matter of private concern even without actual malice.[224] For reasons that will become apparent shortly,[225] if we start with the question of falsity, the threshold issue of the proper degree of fault will drop out of the analysis.

For First Amendment purposes, descriptive opinions can make false assertions of fact; normative opinions never do. Both kinds of opinion are protected

---

[219] *Id.* at 18.

[220] *Id.* at 19–21.

[221] It is still common to see in lower-court opinions a distinction between actionable statements of "fact" and non-actionable statements of "opinion." These courts are misreading *Milkovich*, which rejected this very dichotomy. *See* Robert D. Sack, *Protection of Opinion Under the First Amendment: Reflections on Alfred Hill, "Defamation and Privacy Under the First Amendment"*, 100 COLUM. L. REV. 294 (2000). Sometimes, they distinguish "fact" from "opinion" by saying that the former are capable of being proven false and the latter are not. Since falsifiabiliy was the basis of the Court's holding in *Milkovich*, no real harm is done. But when they draw on the vague contextual factors the Court rejected, the result is a hopeless muddle. *See, e.g.*, Gilbrook v. City of Westminster, 177 F.3d 839 (9th Cir. 1999); Sack at 324–25 (criticizing *Gilbrook* and similar opinions).

[222] *See* New York Times Co. v. Sullivan, 376 U.S. 254, 279–80 (1964).

[223] Gertz v. Robert Welch, Inc., 418 U.S. 323, 437 (1974).

[224] Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc., 472 U.S. 749 (1985). The holding of the case is elusive, as no opinion commanded a majority. *See generally* Lee Levine & Stephen Wermiel, *The Landmark That Wasn't: A First Amendment Play in Five Acts*, 88 WASH. L. REV. 1 (2013) (reviewing in detail the Justices' deliberations and internal debates over *Greenmoss*).

[225] *Infra* Part IV.C.

speech, but for different reasons, and to very different extents. Normative opinions are protected speech because we have decided as a society to treat matters of taste and value as questions of individual conscience rather than objective agreement. Elizabeth Hand says that Rick Moody is "one of our best writers.[226] while Dale Peck says that he is "the worst writer of his generation."[227] Allowing them both to have their say respects personal autonomy while promoting social pluralism. This is the idea underlying Justice Powell's famous statement that "Under the First Amendment there is no such thing as a false idea."[228] If one diner thinks a restaurant's food is terrible and another thinks it is terrific, the legal system is not in a position to take sides.[229] It cannot say that one is right and the other is wrong without invading freedom of conscience.[230]

In contrast, freedom of expression for descriptive opinions is an instrumental goal: it helps encourage the creation of better and more accurate knowledge about the world. Whether they are predictions about the future, like a weather report, or claims about presently existing but uncertain facts, like a hydrogeologist's estimate of the reserves in an oil field, descriptive opinions have in common that they are attempts to describe accurately the objective world as it is. As such, they can be wrong. A statement that makes an objective claim about the world we live in is capable of being disproven by the right evidence, at least in principle.[231]

Importantly, however, falsity alone is not enough to make a descriptive opinion actionable. If speakers could be sued for saying things that turned out to be wrong, they would be deterred from venturing beyond rock-solid facts. Since we want people to investigate the unknown, venture new hypotheses, and make informed but incomplete guesses, the freedom to tell the truth is not by itself sufficient protection for descriptive opinions. If forecasters today can legitimately have different opinions about the weather tomorrow's weather, it follows that some of them will turn out to have been wrong. But if we punish meteorologists for mak-

---

[226] Elizabeth Hand, *Searching for Lost Time*, WASH. POST., July 1, 2007, at BW06 (reviewing RICK MOODY, RIGHT LIVELIHOODS: THREE NOVELLAS (2007)).

[227] Peck, *supra* note __.

[228] Gertz v. Robert Welch, Inc. 418 U.S. 323, 339 (1974).

[229] *See. e.g*, Mayfair Farms, Inc. v. Socony Mobil Oil Co., 172 A.2d 26, 28 (1961) ("And if the plaintiffs are convinced they deserve three stars or better and the defendants (through their editorial group) that two stars for Mayfair and one star for Pal's are enough, those are matters of judgment and opinion on which the court should not try to say that either party is right or wrong.").

[230] *See*. Post, *supra* note __, at 659 ("[A]ny government effort to penalize false judgments in public discourse would in effect use the force of the state to impose the standards of a specific community.").

[231] *See* Kathrn Dix Sowle, *A Matter of Opinion:* Milkovich *Four Years Later*, 3 WM. & MARY BILL OF RTS. J. 467, 5777–79 (1994) (endorsing this distinction); Jefferson County Sch. Dist. No. R-1 v. Moody's Investor's Servs., 175 F.3d 848, 853 (1999) (endorsing, and garbling, the distinction).

ing incorrect predictions about the weather, some of them will give up entirely.[232] Thus, fault requirements for descriptive opinions, such as the actual malice threshold adopted in *Milkovich*, require that speakers be aware of the likely falsity of their claims before liability can attach.

Falsity and fault are more broadly applicable to descriptive opinions than is sometimes appreciated. Consider a pair of cases cited in the debate over search rankings, one each by conduit and editor theorists. On the conduit side, Oren Bracha and Frank Pasquale point to "the uncovered speech in an aircraft navigational chart"[233] in the case of *Saloomey v. Jeppesen & Co*, where the defendant published a chart incorrectly stating that the Martinsburg, WV airport had an instrument landing system.[234] An experienced pilot using the chart tried to make an instrument landing at Martinsburg and crashed on approach, killing himself, his father, and his son.[235] The Second Circuit affirmed a jury verdict that the chart was a defective product.[236] These cases generally do not even discuss the First Amendment; Bracha and Pasquale would say that it is similarly inapplicable to search rankings.[237]

The result in *Saloomey* makes sense, but let us be clear about the reason. The chart was defective because the information it presented was false. It thus makes more sense to describe the charts at issue in *Saloomey* and the other products liability cases as covered but unprotected speech than as uncovered speech.[238] The difference is that Jeppesen has a First Amendment right to sell accurate charts. If the chart had truthfully described the facilities available at the Martinsburg airport, the First Amendment would have barred the suit.

---

[232] *See* Gertz v. Robert Welch, 418 U.S. 323, 340 ("Although the erroneous statement of fact is not worthy of constitutional protection, it is nevertheless inevitable in free debate. . . . And punishment of error runs the risk of inducing a cautious and restrictive exercise of the constitutionally guaranteed freedoms of speech and press. Our decisions recognize that a rule of strict liability that compels a publisher or broadcaster to guarantee the accuracy of his factual assertions may lead to intolerable self-censorship.").

[233] Bracha & Pasquale, *supra* note __, at 1194 & n.237.

[234] Saloomey v. Jeppesen & Co., 707 F. 2d 671 (2nd Cir. 1983).

[235] *Id.* at 672–73.

[236] *Id.* at 672.

[237] Another navigational-chart case of note is Brocklesby v. United States, 767 F.2d 1288, 1295 n.9 (9th Cir. 1985), which refused to consider a First Amendment defense because the defendant raised the issue for the first time on appeal. An earlier but withdrawn panel opinion rejected the defense because it considered the chart a "false or misleading commercial message[]." Brocklesby v. United States, 753 F.2d 794, 803 (9th Cir. 1985).

[238] For more on the distinction between First Amendment coverage and protection, see Frederick Schauer, *The Boundaries of the First Amendment: A Preliminary Exploration of Constitutional Salience*, 117 HARV. L. REV. 1765, 1769 (2004).

On the editor side, Eugene Volokh and Donald Falk cite *Winter v. G.P. Putnam's Sons* for the proposition that search results are pure expression and fully protected speech. There, the plaintiffs were "mushroom enthusiasts who became severely ill from picking and eating mushrooms after relying on information in The *Encyclopedia of Mushrooms*, a book published by the defendant."[239] As a matter of tort law subject to the "gentle tug of the First Amendment and the values embodied therein," the Ninth Circuit held that the publisher had no "duty to investigate the accuracy of the contents of the books it publishes."[240] For Volokh and Falk, Google is a publisher just like G.P. Putnam Son's.

But *Winter* does not stand for the proposition that the First Amendment absolutely shields the publishers of harmful misinformation. In a footnote, the court added that a "stronger argument might be made" in a case involving "fraudulent, intentional, or malicious misrepresentation."[241] *Winter*, in other words, is a case about fault rather than falsity: strict liability or negligence will not support a lawsuit against a book publisher, but worse misconduct may.[242] That has to be right. The First Amendment should not shield a publisher who advises readers to eat *Amanita phalloides* with liver failure aforethought. For policy reasons, it makes sense to hold Jeppesen to a higher standard of care than G.P. Putnam's Sons, given the nature of their respective publications. But in both cases, the crucial threshold of falsity has already been crossed—the only remaining argument is over what degree of fault the First Amendment requires.

C. What Makes a Search Result False?

A close reading of *Milkovich*'s discussion of falsity offers a surprisingly elegant doctrinal solution to search bias claims. Relevance is such an ambiguous and contested concept that there will typically be no way to show that a search ranking

---

[239] Winter v. G.P. Putnam's Sons, 938 F. 2d 1033 (9th Cir. 1991).

[240] *Id.* at 1037.

[241] *Id.* at 1037 n.9.

[242] The same principle applies to other lawsuits by readers who were injured after following bad advice in publications. *See, e.g.*, Smith v. Linn, 386 Pa. Super. 392, 394 (1989) (book recommending "liquid protein diet"); Herceg v. Hustler Magazine, 565 F. Supp. 802, 803 (S.D. Tex. 1983) (magazine story describing autoerotic asphyxiation); Cardozo v. True, 342 So. 2d 1053, 1054 (Fla. App. 1977) (cookbook with recipe including taro roots, which are toxic when raw). These cases should be distinguished from the lawsuits over information that is harmful to third parties when acted on. *See, e.g.*, Rice v. Paladin Enter., 128 F. 3d 233, 239 (4th Cir. 1997) (suit by family of murder victims against publisher of *Hit Man: A Technical Manual for Independent Contractors*). *See generally* Eugene Volokh, *Crime-Facilitating Speech*, 57 STAN. L. REV. 1095 (2005) (discussing these latter cases in great detail). The former involve dangerous falsehoods; the latter involve dangerous truths. *See* Susan M. Gilles, *"Poisonous" Publications and Other False Speech Physical Harm Cases*, 37 WAKE FOREST L. REV. 1073 (2002) (making distinction). *See generally* Juliet Dee, *"How-To" Manuals for Hitmen: Paladin Press, a Triple Murder, and First Amendment Protection of Technical Information*, 23 COMM. & L. 1 (2001) (surveying caselaw on dangerous information).

is false according to an objective, external benchmark. It is, however, possible to show that a search engine itself subjectively disbelieved its relevance claims. Thus, a ranking is meaningfully false when it is given in knowing or reckless disregard of the search engine's own internal standards for evaluating users' relevance judgments. Such bad-faith rankings will also automatically satisfy *Milkovich*'s actual-malice standard of fault. *The two elements converge for search results*. This is an attractive compromise between the editor theory, which asserts that rankings can never be false, and the conduit theory, which treats falsity as a trivial matter when it bothers to worry about falsity at all.

This Section takes up the falsity of search rankings in two stages: objective and subjective.[243] Other cases about allegedly false ratings will provide useful guidance.[244]

1. Objective Falsity

Google's critics regularly assert that rankings are falsifiable because relevance is objective. Foundem claims, "For the query 'compare prices shoei xr-1000', Foundem is one of only two or three truly relevant pages,"[245] and "It clearly makes no sense to exclude price comparison sites from these results [for searches like `[best price canon eos 500d]`.]"[246] These are claims that relevance for these queries is objectively determinable, and that Google's results are demonstrably wrong because they exclude Foundem. Kurt Wimmer argues that it could be misrepresentation for Google to claim "that its own services are the most relevant"[247] Nextag CEO Jeffrey Katz claims, "In addition, Google often uses its prime real estate to promote its own (often less relevant and inferior) products and services, prohibiting companies from buying its best advertisements."[248] Again, these arguments only make sense if relevance has an external reality.

These critics are probably right that the intentions behind some queries are reasonably unambiguous. But this does not imply that the best results for those queries are similarly unambiguous. Some users will find Foundem easier to use and more helpful than Nextag; others will have the opposite reaction. Which of these product search sites should come up first in a search for `[canon eos 500d`

---

[243] *See* Couture, *Opinions Actionable*, *supra* note __.

[244] "A ranking is a special case of a rating in which the scale is ordinal: first best, second best, and so on through worst.." Grimmelmann, *Three Theories*, *supra* note __, at 855.

[245] *Foundem's Google Story*, *supra* note __.

[246] *Google Penalty Myths*, SEARCHNEUTRALITY.ORG (Nov. 19, 2009), http://www.searchneutrality.org/eu-launches-formal-investigation/myths-surrounding-google-penalties.

[247] Kurt Wimmer, *The Proper Standard for Constitutional Protection of Internet Search Practices* (unpublished white paper), *available at* http://goo.gl/GkL0Y.

[248] Jeffrey Katz, *Google's Monopoly and Internet Freedom*, WALL ST. J., June 8, 2012, at A15.

`compare prices]`—or whether Google Shopping should—is not a question with a unique answer. Reasonable minds can and will differ. The diversity of users' preferences for most queries will tend to make the choice to rank one website over another nonfalsifiable.

This is the real point of the statement in *Search King* that rankings are subjective "because every algorithm employed by every search engine is different, and will produce a different representation of the relative significance of a particular web site."[249] The statement is questionable if "each search engine's method of determining relative significance" is simply a better or worse guess at some measurable quantity, like the number of jellybeans it would take to fill Soldier Field. Search King could come to court with better math, and Google's estimate would be demonstrably false. But where "relative significance" is itself unknowable, then there is no way even to say what a PageRank *means*, let alone that it means something untrue.[250]

A pair of rating cases illustrates the distinction. On the one hand, consider *ZL Technologies v. Gartner*, in which a company sued for defamation and trade libel over being rated a "niche" player in Gartner's "Magic Quadrant."[251] The court easily dismissed the case, pointing out that Gartner's axes of quality—"ability to execute" and "completeness of vision"—were "subjective on their face, and a given vendor's placement explicitly reflects Gartner's interpretation and opinion."[252] The court was right: this corporo-babble borders on the meaningless.[253] Whether ZL Technologies did or did not have a complete vision and the ability to execute on it is not a sufficiently well-posed question for courts to be capable of answering it.

---

[249] Search King, 2003 WL 21464568, *10.

[250] *See generally* Rebecca Tushnet, *It Depends on What the Meaning of "False" Is: Falsity and Misleadingness in Commercial Speech Doctrine*, 41 LOY. L.A. L. REV. 227 (2007) (detailing the difficulties courts face in understanding challenged statements well enough to assign them truth values).

[251] ZL Tech., Inc. v. Gartner, Inc., 709 F. Supp. 2d 789, 791 (N.D. Cal. 2010), *aff'd* 433 Fed. Appx. 547 (9th Cir. 2011).

[252] *Id.* at 798.

[253] *Cf.* Browne v. Avvo, 525 F. Supp. 2d 1249, 1252–53 (W.D. Wash. 2007) (dismissing lawsuit against lawyer-rating website that ranked the website's CEO higher than Justice Ginsburg, saying the ratings were "an abstraction," calling the rating of attorneys "ludicrous," and adding, ""that and $1.50 will get you a ride on Seattle's new South Lake Union Streetcar."); Castle Rock Remodeling, LLC v. Better Business Bureau of Greater St. Louis, Inc. 354 S.W.3d 234, 241–43 (Mo. App. 2011) (finding Better Business Bureau "C" rating not "sufficiently factual to be susceptible of proved true or false"). Diane Zimmerman's category of loose, figurative language protected as opinion may be relevant here. *Cf.* Zimmerman, *Loose Talk*, *supra* note __, at 397–98; Old Dominion Branch No. 496, National Association of Letter Carriers v. Austin, 418 U.S. 264, 284 (1974) (protecting "loose, figurative" words as opinions).

Compare *Aviation Charter v. Aviation Charter, Inc. v. Aviation Research Group/US*.[254] The defendant, ARGUS, gave its lowest safety rating to Aviation Charter, which sued for defamation. The Eighth Circuit held that the rating was protected opinion because it was unfalsifiable, calling it a "subjective interpretation"[255] and explaining, "ARGUS chose which underlying data to prioritize, performed a subjective review of those data, and defined 'safety' relative to its own methodology."[256] It is respectfully submitted that this is nonsense. ARGUS's customers were not paying it $5,000 a year for Humpty-Dumpty-esque redefinitions of "safety." They had a specific factual question in mind—*will I die if I get on this plane?*—and ARGUS's ratings were designed to help answer that question. The District Court's opinion was better-reasoned: it held that ARGUS acted without actual malice by relying on federal safety databases.[257] This approach acknowledges that a safety rating is a meaningful but protected descriptive opinion: both a statement about the world and a statement about which reasonable minds can potentially disagree.[258]

2. Subjective Falsity

But there is more than one way to skin a search ranking. Even though there is no absolute yardstick of relevance, if Google were to tweak its algorithms to demote a site in a way that reduced its own internal metrics of relevance, that tweak could render the resulting rankings false. As *Milkovich* explains,

> For instance, the statement, "I think Jones lied," may be provable as false on two levels. First, that the speaker really did not think Jones had lied but said it anyway, and second that Jones really had not lied. It is, of course, the second level of falsity which would ordinarily serve as the basis for a defamation action, though falsity at

---

[254] Aviation Charter v. Aviation Charter, Inc. v. Aviation Research Group/US, 416 F.3d 864 (8th Cir. 2005). *See generally* Lisa Normand, *Torts-Aviation Safety Ratings as Defamation:* Aviation Charter, Inc. v. Aviation Research Group/US, 71 J. AIR L. & COM. 67 (2006).

[255] *Id.* at 871.

[256] *Id.*

[257] Aviation Charter, Inc. v. Aviation Research Group/US, No. Civ. 03–2439 PAM/RLE, 2004 WL 1638176 (July 10, 2004). The District Court did not reach the question of falsity, but perhaps it should have: the entire case arose in the aftermath of the well-publicized Aviation Charter crash that killed Senator Paul Wellstone. ARGUS might have had a good defense that Aviation Charter was objectively unsafe.

[258] *See* Aviation Charter, 416 F.3d, at 866–67 (describing computation of ARGUS's ratings).

> the first level may serve to establish malice where that is required for recovery.[259]

In a search ranking, the second-level statement ("this website is not relevant.") is unprovable and unfalsifiable. But the implicit first-level statement ("[Google believes] this website is not relevant") is false where Google believes otherwise.

There is an illuminating analogy between search rankings and credit ratings: both are numerical statements about quality that combine a huge amount of knowledge about the world into a single, ambiguous statement.[260] Because a rating is only a prediction about the probability of default, and because that probability is expressed on a non-numerical scale, it is difficult or impossible to prove a credit rating objectively false.[261] But this fact has not deterred courts from allowing some suits against credit rating agencies. [262] The key is bad faith.[263] An actionable rating is not merely a bad predictions in light of how things turned out, not merely a bad prediction in light of the evidence available, but one affirmatively given in knowing or reckless violation of the rater's own standards.[264] These ratings are "false"

---

[259] Milkovich, 497 U.S. 1, at 20 n.7 (1990). *See also* Virginia Bankshares, Inc. v. Sandberg, 501 U.S. 1083, 1092 ("Such statements [of reasons, opinions, or beliefs] are factual in two senses: as statements that the directors do act for the reasons given or hold the belief stated and as statements about the subject matter of the reason or belief expressed.").

[260] The missing link between *Search King* and *Milkovich* is actually a credit rating case, Jefferson County School Dist. No. R-1 v. Moody's Investor Servs., 175 F.3d 848 (10th Cir. 1999). *Search King* cites *Milkovich* only by way of embedded quotations from *Jefferson County*. Others who have noted the connection between search engines and credit-rating agencies include Mark Patterson, *Manipulation of Product Ratings: Credit-Rating Agencies, Google, and Antitrust*, CPI ANTITRUST CHRON., Spring 2012, and Andrew Carroll, *Don't Be Evil . . . Unless It Increases Revenue: What the Operation of Credit Rating Agencies Can Teach Us About Google*, 31 TEMP. J. SCI. TECH. & ENVTL. L. 93 (2012).

[261] *See, e.g.*, Compuware Corp. v. Moody's Investors Servs., Inc., 499 F.3d 520, 529 (2007) ("A Moody's credit rating is a predictive opinion, dependent on a subjective and discretionary weighing of complex factors. We find no basis upon which we could conclude that the credit rating itself communicates any provably false factual connotation.").

[262] *See, e.g.*, Anschutz Corp. v. Merrill Lynch & Co., 785 F. Supp. 2d 799 (N.D. Cal. 2011); Abu Dhabi Com. Bank v. Morgan Stanley & Co., 651 F. Supp. 2d 155, 175–76 (2009).

[263] *See, e.g.*, King County v. IKB Deutsche Industriebank AG, 751 F. Supp. 2d 652, 664–65 (S.D.N.Y. 2010) ("I have already ruled that plaintiffs stated a claim for fraud against Fitch, which means plaintiffs have adequately pled that (1) Fitch did not 'genuinely and reasonably believe' the ratings it issued or that (2) those ratings were without basis in fact'—i.e., that they did not hold the opinions expressed by the ratings) (internal quotations omitted).

[264] *Compare* Anschutz, 785 F. Supp. 2d, at at 824 ("TAC may bring negligent misrepresentation claims against the Rating Agencies if plaintiff alleges that the Agencies did not honestly entertain the opinions about the ratings at the time they were issued."), *with* Plumbers Union Local No. 12 Pension Fund v. Nomura Asset Acceptance Corp., 632 F.2d 762, 775 (1st Cir. 2011) (dismissing misrepresentation claim because "tellingly, the complaint stops short of alleging expressly that the leadership of S & P or Moody's believed that their companies' ratings were false or were unsupported by models that generally captured the quality of the securities being rated.").

because the rating agency has promised that they honestly represent its estimate of creditworthiness—but they do not.[265] As one court explained,

> When a rating agency issues a rating, it is not merely a statement of that agency's unsupported belief, but rather a statement that the rating agency has analyzed data, conducted an assessment, and reached a fact-based conclusion as to creditworthiness. If a rating agency *knowingly* issues a rating that is either unsupported by reasoned analysis or without a factual foundation, it is stating a *fact-based* opinion that it does not believe to be true.[266]

Subjective falsity alone does not typically suffice to make a statement actionable under the securities laws.[267] The best explanation is that subjective falsity alone is not *material* to investors who care about the objective reality the statement describes.[268] Credit ratings, however, exist at all and are relied on by investors precisely because they express the best available proxy for an unobservable aspect of reality: the rating agency's judgment. Subjective honesty is all.[269]

---

[265] *See* In re Credit Suisse First Boston Corp., 431 F. 3d 36, 48 (1st Cir. 2005) ("In cases premised on misstatements of opinion, however, the falsity element, at a minimum, entails an inquiry into whether the statement was subjectively false . . . .").

[266] Abu Dhabi Com. Bank v. Morgan Stanley & Co., No. 08-cv-07508, 2012 U.S. Dist. LEXIS 119671 (S.D.N.Y. Aug. 17, 2012).

[267] *See* Virginia Bankshares, 501 U.S., at 1096; Couture, *supra* note __ (endorsing this rule).

[268] *See* Couture, *supra* note __ (criticizing courts' "unsound materiality analyses" in falsity cases).

[269] *See* Letter from Laurence H. Tribe & Thomas C. Goldstein to Securities and Exchange Commission, Dec. 14, 2009, at 4 ("But NRSROs are not altogether immune from suit, for the First Amendment does not preclude the imposition of liability for a factual misstatement in a rating (*including the fact that the NRSRO believes a certain rating opinion*) if it is made with actual malice") (quotation omitted, emphasis added). *Cf.* Letter from Eugene Volokh to the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises of the House Committee on Financial Services (May 15, 2009) (calling credit ratings "pure opinion"). For further academic analyses applying the First Amendment to credit ratings, see, e.g., Caleb Deats, *Talk That Isn't Cheap: Does the First Amendment Protect Credit Rating Agencies' Faulty Methodologies from Regulation?*, 110 COLUM. L. REV. 1818 (2010); Parisa Haghshenas, *Obstacles to Credit Rating Agencies' First Amendment Defense in Light of* Abu Dhabi, 8 FIRST AMEND. L. REV. 452 (2010); Jonathan W. Heggen, *Not Always the World's Shortest Editorial: Why Credit-Rating-Agency Speech Is Sometimes Professional Speech*, 96 IOWA L. REV. 1745 (2011); Gregory Hussian, *What Standard of Care Should Govern the World's Shortest Editorials? An Analysis of Bond Rating Agency Liability*, 75 CORNELL L. REV. 410 (1990); Kenneth C. Kettering, *Securitization and Its Discontents: The Dynamics of Financial Product Development*, 29 CARDOZO L. REV. 1553, 1689–91 (2008); Theresa Nagy, Note: *Credit Rating Agencies and the First Amendment: Applying Constitutional Journalistic Protections to Subprime Mortgage Litigation*, 94 MINN. L. REV. 140 (2009); Ulrich G. Schroeter, *Three Letters That Move the Markets: Credit Ratings Between Market Information and Legal Regulation*, J. APPLIED RES. IN ACCT. & FIN., July 2011, at 14.

And so back to search results. Google holds out to the world that its rankings attempt to maximize relevance.[270] Indeed, the head of Google's search ranking team wrote, "Our algorithms rank results based only on what the most relevant answers are for users . . . ."[271] In pursuing this broad goal, Google, like the ratings agencies, is free to establish its own criteria for measuring and describing quality. It is not free, however, to assert that it has attempted to maximize quality when it has not actually done so.[272] That is a false statement of fact, one implicitly embedded in every ranking it utters that is based on something other than relevance. Determining whether Google believes its search rankings, of course, requires looking at its surveys of user relevance assessments, its internal treatment of those surveys, and its procedures for translating those assessments into search rankings.[273]

What is more, the bad faith in misrepresenting the process by which results are generated can also suffice to demonstrate the necessary fault. Consider again the quoted passage from *Milkovich*. If Google does not believe the rankings it provides to a user, this is "falsity at the first level," the equivalent of "speaker [who] really did not think Jones had lied but said it anyway" in the Supreme Court's hypo. But as the Court noted, this dishonesty "may serve to establish malice"—it is precisely because the speaker has direct access to her own beliefs that a false statement about them is knowingly false. So too with a search engine. If it acts with subjective bad faith—that is, in knowing disregard of what it regards as its own best indicia of relevance—its reported rankings are not just false, but knowingly false. This is an important convergence. The combination of subjectivity and objectivity in a search ranking mean that falsity and fault are not just connected, but coextensive. The same facts that establish one establish the other.

This analysis does not depend on the fact that Google explicitly embraces relevance as its goal. The social practice of search is oriented around relevance: even in the absence of explicit claims, users would reasonably assume that Google is not deliberately hiding relevant results. Defamation law takes the common-sense position speakers ordinarily have bases for their statements, so a statement of

---

[270] *See* Schmidt Testimony, *supra* note __, Written Response to Senator Kohl 14, ("At all times, Google's primary motivation has been improving the search experience for our users by providing the most relevant and useful information in response to their queries.").

[271] Singhal, *Setting the Record Straight*, *supra* note __.

[272] In theory, the falsehood could be either general (because the ranking criteria Google uses are not an honest attempt to implement relevance), or specific (because a given ranking did not actually result from the application of those criteria). In practice, however, the distinction collapses, as described in Part IV.D *infra*. Since no significant consequences turn on it, it is better not to attempt the difficult exercise in line-drawing involved.

[273] If this sounds like a difficult exercise, consider that it may still be an easier hill to scale than objective falsity. *See* Tushnet, *supra* note __.

"opinion" with no stated basis may sometimes be treated as implicitly asserting the existence of some underlying facts sufficient to warrant the opinion.[274] So too with search. Users would naturally expect that the search engine has a relevance-related justification for returning the results it does and not others.

How far can explicit disclaimers go? Could Google draft a disclaimer that would entirely exonerate it from deception-based claims like tortious interference? Search without relevance is pointless, so a complete disclaimer of relevance would be self-evidently false. Rather, to be effective, a disclaimer would need to affirmatively reveal the other considerations entering into a ranking, such as legal compliance, protection of good morals, or the desire to crush Larry Page's enemies, see them driven before him, and hear the lamentations of their women.

D Algorithms Are a Red Herring

Some commentators would say that the entire above analysis is misguided because no human communication is involved at all. They believe it makes a significant difference that Google uses computers to generate its search results. They are wrong.[275]

Tim Wu argues in yet another *New York Times* op-ed about Google that "computerized decisions" should not be considered speech. Comparing search results to GPS route suggestions, Microsoft Word spell-checking, and Facebook friend suggestions, he explains that "computer programs are utilitarian instruments meant to serve us" whereas the First Amendment "is intended to protect actual humans against the evil of state censorship." He concludes:

> The line can be easily drawn: as a general rule, nonhuman or automated choices should not be granted the full protection of the First Amendment, and often should not be considered "speech" at all. (Where a human does make a specific choice about specific content, the question is different.)

Wu's argument misses the nature of the (very human) opinions expressed in search results, because it slights the idea that opinions can be expressed through

---

[274] *See, e.g.*, RESTATEMENT (SECOND) OF TORTS § 566; TMJ Implants, Inc. v. Aetna, Inc., 498 F.3d 1175, 1183–87 (discussing Restatement test in detail and concluding, "In sum, we find little difference between § 566 and the *Milkovich* standard . . . .").

[275] *See generally* Benjamin, *supra* note __ (arguing that many "algorithm-based outputs" are speech for First Amendment purposes).

automated processes.[276] If Google consisted of Larry Page sitting at a computer personally typing out answers to users' queries, his responses would constitute protected speech. The actual Google differs because Page and his employees have written a complicated computer program that takes users' queries as its input and produces search results as its output.

This is not a meaningful distinction when thinking about search results. Suppose that Larry Page programs a computer to respond "Try Bobo's Drive-In" whenever a user types in `[food]`. In Wu's terms, this is a "specific choice about specific content" made repeatedly; it walks and quacks like speech. The same reasoning applies to any other up-front programming choice that has numerous predictable consequences: directing users to restaurants' own webpages over review sites (or vice-versa), directing GPS users to take arterial roads rather than side streets (or vice-versa), or directing the friend suggester not to suggest as friends people currently in a relationship with users' exes. Whether or not each of these decisions is speech, algorithmically multiplying its consequences a millionfold should not change the answer.

Nor can "the algorithm" be used as a baseline from which any deviation is impermissible deception. Every search result is produced algorithmically; there is no meaningful dividing line between algorithmic and manual search results. It's algorithms all the way down. Compare two cases involving Google's responses to rankings manipulation. In November 2010, the *New York Times* reported on DecorMyEyes, an online glasses vendor that cheated its customers and then deliberately offended them when they complained, knowing that they would post furious reviews—thereby tricking Google into thinking that DecorMyEyes was a popular site.[277] In February 2011, the same reporter caught a much bigger fish: J.C. Penney.[278] The retailer had engaged in "the most ambitious attempt" at gaming Google an industry expert had ever seen, buying thousands of links to JCPenney.com from unrelated websites. Google "developed an algorithmic solution" to detect and demote hundreds of merchants like DecorMyEyes that "pro-

---

[276] For versions of this reply to Wu, *see* Timothy B. Lee, *Do You Lose Free Speech Rights if You Speak Using a Computer?*, ARS TECHNICA (June 22, 2012), http://arstechnica.com/tech-policy/2012/06/do-you-lose-free-speech-rights-if-you-speak-using-a-computer/; Eugene Volokh, *Freedom of Speech and Information Produced Using Computer Algorithms*, VOLOKH CONSPIRACY (June 21, 2012), http://www.volokh.com/2012/06/21/freedom-of-speech-and-information-produced-using-computer-algorithms/. For a more comprehensive treatment of the algorithmic speech question, see Benjamin, *supra* note __; *see also* Bruce Boyden, *Speech by Proxy*, MADISONIAN (June 25, 2012), http://madisonian.net/2012/06/25/speech-by-proxy.

[277] David Segal, *A Bully Finds a Pulpit on the Web*, N.Y. TIMES, Nov. 26, 2010, at BU1.

[278] David Segal, *The Dirty Little Secrets of Search*, N.Y. TIMES, Feb. 13, 2011, at BU1.

vide an extremely poor user experience."[279] In contrast, Google took individual "manual action" against J.C. Penney, dropping its website from the number-one result for "living room furniture." to number sixty-eight.[280] There is no meaningful difference between the cases: relevance is the real issue, not algorithmic versus manual ranking.

E. Conclusion: The Federal Trade Commission Gets It Mostly Right

To summarize, statements of descriptive opinions can be actionable when they are false and made with sufficient fault. Search results generally cannot be proven false from an objective perspective, because of the subjectivity of users' goals. But they can be proven false from a subjective perspective, when they knowingly or recklessly do not reflect a search engine's own assessments of relevance to users. In these cases, the bad faith also establishes actual malice, thereby satisfying whatever constitutional threshold of fault applies.

When the FTC closed its search-bias investigation into Google, it seems to have acted consistently with its mission as a consumer-protection agency and recognized that Google's users were the real parties in (the public) interest. The FTC's statement official explained, in essence, that Google's results are not subjectively false because Google's algorithms are a good-faith effort to maximize user relevance:

> The totality of the evidence indicates that, in the main, Google adopted the design changes that the Commission investigated to improve the quality of its search results, and that any negative impact on actual or potential competitors was *incidental to that purpose*. . . .
>
> While Google's prominent display of its own vertical search results on its search results page had the effect in some cases of pushing other results "below the fold," the evidence suggests that Google's *primary goal* in introducing this content was to quickly answer, and better satisfy, its users' search queries by providing directly relevant information.[281]

Google's critics were outraged, but this was probably the right result. The FTC asked the right question ("Did Google adjust its algorithms for the purpose of sending users to less relevant sites?) and came to a defensible answer ("No.")

---

[279] Amit Singhal, *Being Bad to Your Customers Is Bad for Business*, GOOGLE OFFICIAL BLOG (Dec. 1, 2010), http://googleblog.blogspot.com/2010/12/being-bad-to-your-customers-is-bad-for.html.

[280] Segal, *Dirty Little Secrets*, *supra* note __.

[281] Statement of the Commission, *In the Matter of Google Inc.*, FTC File Number 111-0163 (Jan. 3, 2013) (emphasis added).

The advisor theory's focus on falsity, which necessarily requires an evaluation of the search engine's good faith, explains the FTC's otherwise surprising turn toward considering motives.[282] Its analysis seems to slide back and forth between discussion of Google's motives and the effects on consumers. But the two are inextricably linked; Google acted in good faith *because* its own studies showed that the changes benefitted users. "Reasonable minds may differ" about search results, the FTC wrote, and its decision properly preserved a safe space for deductive opinions about relevance.[283]

Indeed, many of Google's seemingly problematic practices can be defended, sometimes quite convincingly, as good-faith enhancements to relevance. The penalty that Google applied to Foundem and other vertical-search sites reduces the prominence of dozens of me-too sites with little to distinguish one from another. The same goes for Google's decisions to devote front-page search space to Google+, Universal Search, and Knowledge Graph results. Google can quite reasonably believe that integrating its affiliated sites into results is relevance-improving overall. One may disagree—the present author thinks that the Google+ integration is bad for users and bad for Google—without believing that these decisions, on the evidence available, amount to bad faith.

If there is a fly in the ointment, it is that while the FTC pledged to "remain vigilant and continue to monitor Google"[284] it did not give much thought as to how to carry out its monitoring. Since search bias claims hinge on Google's honesty in following its own processes, an outside observer will rarely have the necessary information to reliably conclude that something fishy is taking place. Only the FTC, with its subpoena power, is well positioned to look "under the hood."[285] Dropping the complaint entirely, as the FTC did, abdicates that responsibility. Some kind of regular ongoing opening up of the algorithms is the most effective way to keep Google loyal. Given Google's size and significance, the FTC should have given more thought to setting a continuing compliance regime—like

---

[282] The FTC added that the changes probably benefitted consumers, but it is striking that the Commission put the intent first and made the actual effects the corollary. To underscore the anomaly of this approach, consider that some of Google's strongest antitrust defenders are also fierce critics of the use of intent evidence in antitrust cases. *Compare* Geoffrey A. Manne & Joshua D. Wright, *Google and the Limits of Antitrust: The Case Against the Antitrust Case Against Google*, 34 HARV. J.L & PUB. POL'Y 1 (2011), *with* Geoffrey A. Manne & Joshua D. Wright, *Innovation and the Limits of Antitrust*. 6 J. COMPETITION L. & ECON. 153 (2010).

[283] Statement of the Commission, *supra* note __, at 3.

[284] *Id.* at 4.

[285] Bracha and Pasquale, *supra* note __, at 1202.

the ones that credit rating agencies are required to have in place.[286] As of this writing, the European Union was poised to avoid making a similar mistake.[287] This isn't just about Google: Bing is big enough, and potentially bad enough, that it ought to have ongoing oversight, too.

V. Other Applications

The advisor theory is useful well beyond search bias. Google's critics allege that it infringes copyright on an epic scale, tramples user privacy, smears the innocent, and kicks puppies for fun. Google, needless to say, sees matters rather differently. On the company's account, it is guilty only of offering the best search results on the web, bar none. The advisor theory helps sort problematic practices from benign ones. This Part gives brief sketches of four other legal controversies around search. It does not offer comprehensive analyses of any of the controversies; that will need to wait for future work. Instead, it shows how access and loyalty bring fresh insights to well-worn disputes.

A. Copyright

Google dreams big, and none of its dreams are bigger than its plan to scan every book ever published.[288] Not the driverless cars.[289] Not the virtual-reality glasses.[290] Not even the prize to land a robot on the moon.[291] No, Google Books—a program regularly compared to a modern Library of Alexandria—best captures the company's ambition and arrogance.[292] Google borrows physical books from libraries and digitizes them, then feeds the texts into its search engine, which tells users who wrote that, and on what page. So far, Google is up to about 20 million.[293] The program has drawn four separate lawsuits by authors and pub-

---

[286] *See* 17 CFR §§ 240.17g-2 (imposing record-keeping requirements on registered nationally recognized statistical rating organizations [NRSROs]), .17g-6(a)(2)–(3) (prohibiting an NRSRO from "[i]ssuing . . . a rating that is not determined in accordance with the nationally recognized statistical rating organization's established procedures and methodologies" in certain cases involving a potential conflict of interest); 15 U.S.C. § 78o-7(3) (requiring each NRSRO to "establish, maintain, enforce, and document an effective internal control structure governing the implementation of and adherence to policies, procedures, and methodologies for determining credit ratings"). *See also* Carroll, *supra* note __, at 116–18 (endorsing Dodd-Frank-ization of Google).

[287] *See* Alex Barker & Richard Waters, *Google in EU Blow Against Rival*, Fin. Times (London), March 7, 2013, at 20.

[288] *See* Jeffrey Toobin, *Google's Moon Shot,* The New Yorker, Feb. 5, 2007, at 30.

[289] *See* John Markoff, *Google Cars Drive Themselves, in Traffic*, N.Y. Times, Oct. 9, 2010, at A1.

[290] *See* Nick Bilton, *A Rose-Colored View May Come Standard*, N.Y. Times, Apr. 4, 2012, at B3.

[291] *See* John Schwartz, *$25 Million in Prizes Is Offered for Trip to Moon*, N.Y. Times, Sept. 14, 2007, at A14.

[292] *See* Sergey Brin, *A Library to Last Forever*, N.Y. Times, Oct. 8, 2009, at A31.

[293] *See* Jennifer Howard, *Google Begins to Scale Back Its Scanning of Books from University Libraries*, Chron. of Higher Ed., Mar. 9, 2012.

lishers for copyright infringement.[294] These are lawsuits over *indexing*: their goal is to stop Google from putting content in its search index without the provider's permission.

The conduit theory would say that since search is a vehicle for websites and other publishers to be found, it follows that they ought to be findable on their own terms. A search engine should be required to index them when they want to be included; and required not to index them when they want to be excluded. On this view, Google Books should have been confined to voluntary agreements with authors and publishers. And the editor theory is ambiguous. A newspaper exercises editorial judgment in choosing comics and columnists—but it needs permission from the authors of both to print them. On the other hand, when the newspaper reports on goings on around town, it is organizing and delivering content of its own, not simply repackaging the content of the art galleries and theaters. On this latter view, Google Books is a wholly new product, one distinct from the books it scans.[295]

The advisor theory comes down decisively in favor of indexing. Users' interests cut uniformly in favor of maximizing the universe of searchable information. Indexing is purely an issue of access: a search engine never acts disloyally by indexing more content. A provider who insists on structuring how users learn about its information is, in essence, taking control of the search process through vertical integration. This limits' users choices among search technology—and directly inhibits their ability to compare among providers. There is rarely a good reason for a speaker to be willing to share its speech with listeners while preventing them from knowing about it. Taking the user's point of view emphasizes the enormous societal gains from searchability: entirely new ways of finding and learning from works become possible.[296]

Thus, the advisor theory is even more radically pro-indexing than the editor theory. For search engines, indexing is a business decision; for users, it is an essential precondition to informational freedom. Indeed, there is a strong argument that information has not been meaningly "published" until it is made searchable. This is the position taken by patent law: a thesis in a library does not qualify as prior art until it is not just physically accessible to the public but properly

---

[294] *See* Authors Guild v. Google, No. 1:05-cv-08136 (S.D.N.Y. complaint filed Sept. 20, 2005); McGraw-Hill Cos. et al. v. Google, No. 1:05-cv-08881 (S.D.N.Y. complaint filed Oct. 19, 2005); American Society of Media Photographers v. Google, No. 1:10-cv-02977 (S.D.N.Y. complaint filed Apr. 7, 2010); Authors Guild v. HathiTrust, No. 1:11-cv-06531 (S.D.N.Y. complaint filed Sept. 12, 2011).

[295] *See* Matthew Sag, *Copyright and Copy-Reliant Technology*, 103 NW. U. L. REV. 1607 (2009) (endorsing broad fair-use protections for such technologies).

[296] *See* Matthew Sag, *Orphan Works as Grist for the Data Mill*, BERK. TECH. L.J. (forthcoming).

indexed.[297] For copyright purposes, *anything openly published should be searchable*. That requires a blanket privilege to copy for the purposes of indexing, and a privilege to show excerpts to users to help them decide whether to follow up on search results by consulting the original.

One important exception may be privacy. Think of a father who puts photographs of his his daughter online and emails the link to family members for sharing with their friends, but who prefers not to have the pictures show up in search engines.[298] A privacy exception, however, makes less sense for books than it does for webpages. Google offers authors and publishers owners an opt-out from book scanning,[299] just as it offers websites an opt-out from its main search engine.[300] It's not clear that Google needs to, or that it should.

Two recent decisions show how fair use can be calibrated to accommodate indexing. In *Authors Guild v. HathiTrust*, it was a fair use for Google's partner libraries to use their copies of the scanned books to create their own search engine.[301] But in *Associated Press v. Meltwater*, it was not a fair use for a news monitoring service to send reports to its subscribers containing substantial excerpts from news stories published on the web.[302] Both drew on a line of cases finding that search engines make transformative fair uses of the material they index because the search engine serves a different purpose than the works it describes.[303] The purpose is only different from the user's point of view: she consults the search engine to find the works, and consults the works themselves to experience and understand them. The *HathiTrust* court embraced the search-engine cases, saying it "cannot imagine a definition of fair use that would not encompass the transformative uses made by" the libraries.[304] But the *Meltwater* court held that Meltwater was not a search engine, because it was a "subscription service" rather than a "publicly available

---

[297] *Compare* In re Cronyn, 890 F.2d 1158 (Fed. Cir. 1989) (thesis indexed only by title on index card in shoebox is not a "printed publication"), *with* In re Hall, 781 F.2d 897 (Fed. Cir. 1986) (thesis indexed in library catalog is a "printed publication").

[298] *See* Woodrow Hartzog & Fred Stutzman, *The Case for Online Obscurity*, 101 CAL. L. REV. 1, 35–37 (2013); Lauren Gelman, *Privacy, Free Speech, and "Blurry-Edged" Social Networks*, 50 B.C. L. REV. 1315 (2009).

[299] *Information for Publishers and Authors About the Library Project*, GOOGLE BOOKS, http://books.google.com/googlebooks/publisher_library.html.

[300] *See* Field, 412 F. Supp. 2d, at 1113.

[301] Authors Guild v. HathiTrust, 104 U.S.P.Q.2d 1659 (S.D.N.Y. 2012).

[302] The Associated Press v. Meltwater U.S. Holdings, Inc., No. 12 Civ. 1087 (DLC) (S.D.N.Y. Mar. 21, 2013).

[303] *See* Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1164–66 (9th Cir. 2007) (image thumbnails transformative), Kelly v. Arriba Soft, 336 F.3d 811, 818–20 (9th Cir. 2003); Field v. Google Inc., 412 F. Supp. 2d 1106, 1118–19 (D. Nev. 2006) (search engine cache transformative).

[304] HathiTrust, 104 U.S.P.Q.2d, at 1672.

tool"[305] and because its searches were "run against a defined list of content providers" rather than the Internet as a whole.[306] Both distinctions are singularly unpersuasive: the court's distinctions would require all search engines to support themselves with advertising and would prohibit vertical search entirely.

The better distinction between the two cases has to do with how users employed the two services. Obtaining a list of books containing a search term is only the first step in the research process; to learn more, one must still must obtain a copy and read the book. That's precisely the kind of connection between authors and readers that the copyright system encourages; it's beyond perverse for authors to object that a search engine recommends their works. But the Associated Press made a plausible argument that Meltwater's users were using its clippings as a substitute for reading the original stories; it had a click-through rate of less than a tenth of a percent.[307] The details are debatable, but the general principle *Meltwater* embraces is sound: search engines have a better fair use case when they help users find websites than when they merely republish websites' content.

B. Privacy

Search is valuable, but it is not free. To generate individually meaningful results, the search engine requires access to the personal information that distinguishes one user from another. The current query is just the tip of the iceberg: over time, a search engine can accumulate an extensive profile of a user's interests. This intellectual history can be intensely personal and immensely revealing.[308] Search *privacy* is therefore a subject of significant concern for consumer advocates;

---

[305] Meltwater at *36.

[306] *Id.* at * 41.

[307] *Id.* at *20. There are multiple reasons why this could be true, not all of them infringing. The court noted that Meltwater showed its users excerpts of up to 440 characters, representing between 4.5% and 61% of the AP's articles. *Id.* at 13, 20. But it did not persuasively explain whether the low click-through-rate was attributable to Meltwater's display of AP's protectable expression, rather than because it was relaying the uncopyrightable underlying facts.

[308] *See* Michael Zimmer, *Privacy on Planet Google: Using the Theory of Contextual Integrity to Clarify the Privacy Threats of Google's Quest for the Perfect Search Engine*, 3 J. BUS. & TECH. L. 109 (2008). The record-holder here may be user "927", whose imperfectly anonymized queries were released along with 650,000 others' by AOL in a well-publicized 2006 scandal. *See* Michael Barbaro & Tom Zeller, Jr., *A Face Is Exposed for AOL Searcher No. 4417749*, N.Y. TIMES, Aug. 9, 2006, at A1. This user's queries included `[cut into your trachea]`, `[beauty and the beast beastility porn]`, `[holocaust rape]`, `[was abe lincoln gay]`, `[intersexed genetails]`, and `[low carb calorie foods]`. To read 927's and other users' query histories is to wince at the consequences if they were to be linked back to specific individuals. Which may be surprisingly easy. *See* Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701 (2010).

some search engines even compete by emphasizing that they retain less information on users.[309]

Neither the conduit nor the editor theory is much help here; their attention is elsewhere. Neither transmitting website speech nor curating a collection of links has any necessary connection to user information. Thus, both theories treat any flow of information from the user to the search engine as a separate issue from the quality of search results.

But on a user-centric view, user data takes center stage. It is the search query that defines search: with no query, the search engine has no question to answer. The very thing that makes search sensitive to user interests means that search engines also acquire sensitive information about what users are interested in. There is no way to engineer a search engine that does not observe user interests. And from a user's perspective, it is also a matter of some importance what is done with that information once it has been handed over to the search engine. A search for `[san jose jobs in sales]` or `[furry videos]` could be embarrassing or worse in the wrong hands. Searches implicate intellectual privacy,[310] which goes to the heart of users' ability to lead autonomous self-directed lives by forming their own private opinions about the world.[311] The freedom to think for oneself requires the freedom to read unobserved,[312] which in turn requires the freedom to search unobserved.

In agency terms, an agent has a duty not to misuse confidential information supplied by the principal.[313] This duty can be waived with properly informed consent, but the common-law baseline is that an agent or advisor in a fiduciary relationship must respect client confidences.[314] Thus, the debate over search user privacy ought to start from this baseline: query data and other data supplied by the user as part of obtaining search results are subject to a duty of confidentiality. Search engines may not transfer any of this data to third parties without informed consent. Nor may they may not use it contrary to the interests of their principals—search users—without informed consent.

---

[309] DuckDuckGo, for example, has an charming explanation of its policies against user tracking at http://donttrack.us/.

[310] *See* Neil Richards, *Intellectual Privacy*, 87 TEX. L. REV. 387 (2008).

[311] *See* M. Zimmer, *The Gaze of the Perfect Search Engine: Google as an Infrastructure of Dataveillance*, *in* WEB SEARCH: MULTIDISCIPLINARY PERSPECTIVES 77, 77 (Amanda Spink & Michael Zimmer eds. 2008) (search engine surveillance of users "threaten[s] the values the perfect search engines were designed to sustain").

[312] *See* Julie E. Cohen, *The Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace*, 28 CONN. L. REV. 981 (1996).

[313] *See* RESTATEMENT (THIRD) OF AGENCY § 8.05(2).

[314] *Id.* § 8.06(1).

This last point has important implications for the gold mine at the heart of Google's advertising business, which is based on precisely targeted advertising.[315] Some of this targeting is valuable to users and valued by them: showing geographically targeted florist ads on a search for `[flowers]` is another way of improving relevance. But in its more comprehensive and intrusive forms, targeted advertising raises serious autonomy concerns; the fear is that advertisers reject the user's reality and substitute their own.[316] It is precisely the comprehensive user profiles that search engines are capable of accumulating in their ordinary course of operations that makes this outcome so troubling.

Everything hinges, therefore, on the degree to which users are aware of the tracking and targeting and are capable of exercising effective control over them. From a user autonomy perspective, the formalistic "consent" of using a website that has a hyperlink in small type to its privacy terms is a terrible proxy for meaningful choice.[317] A better world would feature what Eric Goldman calls "Coasean filters": tools that let users and marketers bargain over who receives which messages.[318] But today's online world is quite far from that ideal; stronger baseline protections for user data and an ecology of effective and usable user-controlled privacy tools will be required to get closer.

C. Defamation

Michael Trkulja would like you to know that he is not a gangster. He was merely minding his own business having dinner in a Melbourne restaurant when a balaclava-clad hit man shot him in the back.[319] The shooting remains unsolved, and a website named Melbourne Crime posted Trkulja's picture along with an article about the case from the *Melbourne Herald Sun*.[320] That webpage also had photographs of other notorious criminals and alleged criminals[321] —implying, Trkulja claimed, that he was a member of Melbourne's criminal underworld. Trkulja sued Yahoo! for returning the Melbourne Crime page as a search result

---

[315] Google had $43 billion in advertising revenue for its 2012 fiscal year.

[316] *See* Tal Zarsky, *"Mine Your Own Business!": Making the Case for the Implications of Data Mining of Personal Information in the Forum of Public Opinion*, 5 YALE J.L. & TECH. art 1 (2003); Chris Jay Hoofnagle et al., *Behavioral Advertising: The Offer You Cannot Refuse*, 6 HARV. L. & POL'Y REV. 273. 294 (2012) ("[A]dvertisers do not see individuals as autonomous beings.")

[317] The British videogame chain Gamestation takes the cake here: it added a term to its website Terms and Conditions that "you agree to grant Us a non transferable option to claim, for now and for ever more, your immortal soul." *See* marcperton, *Read Fine Print Or GameStation May Own Your Soul*, CONSUMERIST (Apr. 16, 2010, http://consumerist.com/2010/04/16/read-fine-print-or-gamestation-may-own-your-soul/.

[318] Eric Goldman, *A Coasean Analysis of Marketing*, 2006 WIS. L. REV. 1151, 1213–18.

[319] Trkulja v. Google Inc., [2012] VSC 533 ¶ 4 (Nov. 12, 2012).

[320] Trkulja v. Yahoo!! Inc, [2012] VSC 88 ¶¶ 2–4. (Mar. 15, 2012).

[321] *Id.* at ¶ 3.

for `[michael trkulja]`.[322] Google had it even worse: an image search for `[michael trkulja]` returned the pictures of actual criminals from the Melbourne Crime page, but captioned with Trkulja's name.[323]

This time it is the editor theory that argues for liability and the conduit theory that would exonerate the search engine, instead of vice versa. The conduit theory treats the search engine as a blameless tool in the service of websites, and therefore pushes all of the responsibility for content off of the search engine and on to websites. American law, in the form of Section 230 of the Communications Decency Act's immunity for interactive computer services, adopts the conduit theory.[324] Trkulja's only recourse in the United States would be against Melbourne Crime, not against the search engines that linked to it.

The editor theory, on the other hand, treats the search engine as an active selector and and arranger of content. A newspaper is typically responsible for the material it assembles into each day's edition, whether that material came from its own reporters, a newswire, advertisers, or another source. So too with a search engine: it chooses which content to feature and has detailed knowledge about that content. The website will frequently be unreachable or judgment-proof; the search engine is an equally culpable but more easily targeted speaker. The Australian courts followed the editor theory: the Supreme Court of Victoria upheld Trkulja's AU$ 225,000 judgment against Yahoo![325] and his AU$ 200,000 judgment against Google.[326]

Neither approach is quite correct. We should rather ask what users want from search in a world where not all information is of equal value. A search engine can help by sorting truth from falsehood—but it can also help simply by helping users find relevant information on a topic. This latter function is more basic: one cannot reliably draw accurate conclusions without access to the full range of data on a topic. When a search engine performs the latter role for its users—telling them what others have said—it does so without endorsing the truth of the content it excerpts or links to. A ranking is a guess that the user will find the con-

---

[322] Trkulja v. Yahoo!, [2012] VSC 88 ¶ 7.

[323] Trkulja v. Google, [2012] VSC 533 ¶ 2.

[324] 47 U.S.C. § 230(c)(1). For cases applying Section 230 to immunize search engines, see Mmubango v. Google, Inc., No. 2:12-cv-01300-MAM, 2013 BL 49473 (E.D. Pa. Feb. 22, 2013) ; Getachew v. Google, Inc., No. 12-1237, 2012 BL 201986 (10th Cir. Aug. 09, 2012); Neeley v. NameMedia, Inc, No. 09-5151, 2011 BL 24617 (W.D. Ark. Jan. 31, 2011); Stayart v. Google, Inc., 783 F. Supp. 2d 1055, 1056–57 (E.D. Wis. 2011); Parker v. Google, Inc., 422 F. Supp. 2d 492 (E.D. Pa. 2006); Maughan v. Google Tech., Inc., 143 Cal. App. 4th 1242 (2006). *See also* Metropolitan Int'l Schools Ltd. v. Designtechnica Corp., [2011] 1 WLR 1743 (QB) (finding Google not liable for allegedly defamatory statements in excerpt from website).

[325] Trkulja v. Yahoo!, *supra* note __ ¶ 60.

[326] Trkulja v. Google, *supra* note __ ¶ 55.

tent relevant, nothing more. Like a newspaper reporting on the controversy over public officials' defamatory statements,[327] a search engine performs a valuable service by telling its users about the existence of a debate in the first place.[328]

That is, the advisor theory reminds us that what is truly at stake is users' access to information. A decision that certain content ought not to be indexed—because it is defamatory, because it is harassing, because it incites racial hatred, or because it will inevitably cause moral rot, tooth decay, and alien invasion—should be recognized for what it is: a decision by government to censor the information available to search users. Of course, there is a good reason for this censorship: defamation law reflects a collective judgment that harmful lies about people ought not be repeated. But the collateral consequences of a duty on search engines to avoid defamatory results are likely to be especially severe.[329] The crucial facts—whether the complained-of statements are true or false—are not typically likely to be in the possession of the search engine. And the subtle shades of meaning involved in parsing allegedly defamatory statements make even the notoriously difficult task of assessing fair use seem simple by comparison. Search engines need clear and well-sheltered safe harbors from defamation liability.

But Section 230 goes too far by providing search engines an absolute immunity for content supplied by websites, regardless of knowledge or intent.[330] If Trkulja has sued Melbourne Crime and won, the argument for leaving Yahoo! and Google entirely alone is much weaker. The same is true if Melbourne Crime is unreachable because it is overseas or anonymous, or if the same false claims are repeated on so many websites that suing them individually is obviously infeasible. Search engines' immunity should be limited when victims supply sufficiently substantiated proof that the linked-to material is defamatory.[331] And some search en-

---

[327] *See* Ashley Messenger, *The Problem with* New York Times v. Sullivan*: An Argument for Moving From a Falsity Model of Libel Law to a Speech Act Model*, FIRST AMDT. L. REV. (forthcoming).

[328] *See* Nieman v. Versuslaw, Inc., No. No. 12-3104, 2012 BL 196699 (C.D. Ill. Aug. 03, 2012) (First Amendment bars claims against search engines for linking to court documents).

[329] *See* Felix Wu, *Collateral Censorship and the Limits of Intermediary Immunity*, 87 NOTRE DAME L. REV. 293 (2011) (discussing § 230 and collateral censorship problem); Grimmelmann, *Don't Censor Search*, *supra* note __ (arguing that the problem will be especially severe for search engines).

[330] For an overview of proposals to modify Section 230, see Joel Reidenberg et al., *Section 230 of the Communications Decency Act: A Survey of the Legal Literature and Reform Proposals* (Fordham Law Legal Studies Research Paper No. 2046230, Apr. 25, 2012).

[331] In copyright, Section 512 of the Digital Milennium Copyright Act limits search engines' immunity in just this way. *See* 17 U.S.C. § 512(d)(3). But the threshold there is too low, because courts have interpreted the provision prohibiting bad-faith notices so narrowly that copyright owners can file takedown notices, even in cases of obvious fair use, with impunity. *See* Rossi v. Motion Picture Ass'n of Am., 391 F.3d 1000, 1004 (interpreting Section 512 as setting a "subjective" standard, so that even unreasonable beliefs about infringement can be the basis for takedown notices). A better provision, in copyright and in defamation, would require that the complainant provide more evidence in the notice, and impose greater penalties for bad-faith or unreasonable notices.

gines don't even deserve this much protection. Imagine a search engine called the Scandal Rag that responds to *every* search query by linking to third-party page accusing Trkulja of murder and arson without a shred of proof. The Scandal Rag substitutes its own agenda for users' goals; it has stepped out of the kind of role for which a immunity makes sense. It is acting like a publisher, rather than an advisor, and the law should treat it as one.[332]

Censorship is one thing; secret censorship quite another.[333] When the law requires search engines not to link to certain content, the very least it owes to users is an explanation. Google provides ready examples of what to do. When the Chinese government required it not to return certain search results relating to the Tiananmen Square crackdown or to Falun Gong, Google decorated the Google.cn results pages that would have contained those links with a disclaimer warning that some results had been removed to comply with local laws.[334] And when Google receives copyright takedown notices under Section 512(d) of the DMCA, it forwards them to the Chilling Effects clearinghouse to document the resulting removals.[335] But Google also provides ready examples of what not to do. Starting in August 2012, it added a new signal, downgrading sites that received high numbers of DMCA takedown requests—even for content that had *not* been the subject of a DMCA notice.[336] This move is neither required by copyright law[337] nor relevance-enhancing from users' perspective.[338] When Google hides webpages it thinks users are looking for, it should be honest with them in saying it has done so.

---

[332] Section 512(d) is a better model here. *See* 17 U.S.C. § 512(d)(1)(A) (denying safe harbor when information location tool has "actual knowledge that the material or activity is infringing").

[333] *Cf.* Derek E. Bambauer, *Cybersieves*, 59 DUKE L.J. 377, 393 (arguing that Internet filtering is more legitimate when countries are transparent about what material is blocked and why).

[334] *See* Grimmelmann, *The Google Dilemma*, *supra* note __, at 947–50. *See also* Alan Eustace, *Better Search in Mainland China*, GOOGLE INSIDE SEARCH (May 31, 2012), http://insidesearch.blogspot.com/2012/05/better-search-in-mainland-china.html (describing new notices to warn Chinese users when a search term they are typing might cause their Internet connection to be interrupted).

[335] *See FAQ*, GOOGLE TRANSPARENCY REPORT, http://www.google.com/transparencyreport/removals/copyright/faq/ ("We link in our search results to the requests published by Chilling Effects in place of removed content when we are able to do so legally..").

[336] Amit Singhal, *An Update to Our Search Algorithms*, GOOGLE INSIDE SEARCH (Aug. 10, 2012), http://insidesearch.blogspot.com/2012/08/an-update-to-our-search-algorithms.html.

[337] UMG Recordings Inc. v. Shelter Capital Partners, No. 09-55902 (9th Cir. Mar. 14, 2013), at 31.

[338] Eric Goldman, *Why Did Google Flip-Flop On Cracking Down On "Rogue" Websites? Some Troubling Possibilities*, TECH. & MKTG. L. BLOG (Aug. 22, 2012), http://blog.ericgoldman.org/archives/2012/08/why_did_google.htm.

D. Trademark

According to Google, `[rosetta stone]` has many meanings. It refers to the Rosetta Stone, the Egyptian stele that made it possible to decipher hieroglyphs. It refers to the well-known line of language-learning software identified by the ROSETTA STONE trademark. And it refers to a wide range of online sites where one can buy language-learning software—some of it authorized ROSETTA STONE software, some of it not. This last category is responsible for all of the trouble.[339]

There is a long-running battle between trademark owners and search engines over keyword *advertising*—which supplies the money that keeps Google and its competitors in the search business at all.[340] The trademark owners hate it when competitors use their trademarks as keywords to trigger advertisements; they have regularly sued both the competitors and search engines, the former with somewhat more success. As against search engines, the consensus seems to be that yes, such uses are potentially infringing, but no court has entered a judgment that a search engine was actually infringing because of its keyword advertising.[341]

Both the conduit and editor theories are ambiguous here. On the conduit theory, perhaps the trademark confers an exclusive right in the trademark owner to use the mark to attract customers, so any diversion of customers looking for the mark owner is a misdirection of traffic. A search for `[coke]` should lead to the real thing, not an ad for Mocha-Cola.[342] Or perhaps the search engine is merely a conduit for advertisers' messages, and does not take responsibility for them. Coke should have it out with the makers of Mocha-Cola, not with Google.

The editor theory is no better. One could argue that the search engine is not a merchant supplying goods and services to compete with trademark owners;

---

[339] *See* Rosetta Stone, Ltd. v. Google, Inc., 676 F.3d 144 (2012) (allowing Rosetta Stone's trademark claims against Google to proceed). The case subsequently settled on undisclosed terms. *See* Stipulation of Voluntary Dismissal with Prejudice, Rosetta Stone, Ltd. v. Google, Inc., No. 1:09-cv-00736 (E.D. Va. Oct 31, 2012).

[340] The academic literature on keyword advertising and trademarks online is immense. Some helpful sources include Margreth Barrett, *Internet Trademark Suits and the Demise of Trademark Use*, 39 U.C. DAVIS L. *REV.* 371 (2006); Graeme B. Dinwoodie & Mark D. Janis, *Confusion over Use: Contextualism in Trademark Law*, 92 IOWA L. REV. 1597 (2007); Stacey L. Dogan & Mark A. Lemey, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L REV. 777 (2004); Eric Goldman, *Deregulating Relevancy in Internet Trademark Law*, 54 EMORY L.J. 507 (2005); Greg Lastowka, *Google's Law*, 73 BROOK L. REV. 1327 (2008).

[341] For an example of an especially definitive win for Google, see Google Inc. v Australian Comp. and Consumer Comm'n. [2013] HCA 1 (Feb. 6, 2013).

[342] *See, e.g*, Coca-Cola Co. v. Overland, Inc., 692 F.2d 1250, 1252 (9th Cir. 1982) (trademark infringement to serve Pepsi to customer who ordered "Coke" without disclosing substitution to customer).

it is merely arranging information about websites in a convenient form, like a drugstore placing every brands of cola in the same section.[343] Or one could argue that the search engine is crafting a deceptive message for users: it was asked for `[coke]` but it served up Mocha-Cola ads instead.

The advisor theory returns our attention to users. They are the ones who create the many meanings of `[rosetta stone]`; the search query is always an approximation of their actual intentions. Some want to buy Rosetta Stone software and want the official site, or a retailer settling it, or a comparison of prices across multiple retailers. Some are engaged in product research: they want user and expert reviews; others are looking to learn more about Rosetta Stone's competition, using the name of the category's best-known brand as a rough synonym for `[language learning software]`. And some really are just looking for the trilingual stele.

This ambiguity means that there is substantial danger in giving any one website exclusive rights to control a search query: it allows the website to divert a wide range of users with diverse interests. At the same time, a disloyal search engine *can* steer users wrong by taking money to show them ads intended to divert them from the websites they're actually looking for. Striking the right balance is a subtle affair. It is easy for a smartphone shopper to glance at and reject one ad, or to hit the back button when she realizes these aren't the `[droids]` she's looking for. But the combined effect of a dozen such ads, or a hundred, can be significant. At some point, the sheer clutter makes it impossible for the users to find the smartphones she seeks. And, of course, an openly deceptive ad coupled with a deceptive website can indeed trick the purchaser into buying the wrong thing.

Thus, the advisor theory leads us naturally back to the question trademark law is also supposed to ask: *are consumers likely to be confused*? This is a fact-sensitive inquiry; it depends on users' reasons for using a particular query, on how results are presented, and on how clearly the paid nature of keyword ads is disclosed.[344] One recent case explained that even when consumers searched for the plaintiff's trademark on Amazon and the search results did not contain any of plaintiff's goods, confusion was unlikely:

> Additionally, the instant situation does not appear to be a case of palming off in the traditional sense. It is akin to the consumer asking for a Coca-Cola and receiving a tray with unopened, labeled, authentic cans of Pepsi-Cola, RC Cola, Blue Sky Cola, Dr. Pepper,

---

[343] *See* Eric Goldman, *Brand Spillovers*, 22 HARV. J.L. & TECH. 381 (2009).

[344] *Compare* Network Automation, Inc. v. Advanced Systems Concepts, Inc., 638 F. 3d 1137, 1154 (9th Cir. 2011) (paid placement labeled as such), *with* Playboy Enterprises, Inc.. v. Netscape Communications, 354 F. 3d 1020, 1030 (9th Cir. 2004) (paid placement not labeled as such).

> and Sprecher Root Beer, and a copy of Coca Kola: The Baddest Chick, by Nisa Santiago. This is a substitution, but given the context it is not infringing because it is not likely to confuse.[345]

The most recent and careful empirical study in the area found "little evidence of consumer confusion regarding the source of goods, but only a small minority of consumers correctly and consistently distinguished paid ads from unpaid search results."[346] These results suggest that Google ought to prevail in other trademark keyword cases—but also that regulators should require clearer differentiation between unpaid organic search results and paid search advertisements.[347]

CONCLUSION

A good search engine advises its users, helping them to become active listeners, and enabling them to act autonomously. Each of these points opens up promising avenues for further inquiry.

First, there is the application of the advisor theory to other problems in search-engine law. This Article has dealt primarily with search bias, and given brief attention to problems of copyright, privacy, defamation, and trademark. But the advisor theory can also provide insights into the antitrust cases against Google, into search engines' obligation to filter copyright-infringing results, into search engines' obligations in dealing with repressive authoritarian governments, into the role of search in open access to government information, and into the problem of web spam targeting search engines, among other issues.

Second, there is active listening. Search engines are an obvious case of active listening—but far from the only one. Descriptively, the fact that listeners can and do make choices about which speech to receive helps explain numerous First Amendment doctrines.[348] And normatively, empowering listeners to make effective choices among speakers is a worthy goal.[349] A well-developed theory of active

---

[345] Multi Time Machine, Inc. v. Amazon.com, No. CV 11-09076, at 10 n.3 (C.D. Cal. Feb. 20, 2013).

[346] David J. Franklyn & David A. Hyman, *Trademarks as Keywords: Much Ado About Something?*, HARV. J.L. & TECH.(forthcoming).

[347] The FTC currently advises search engines to engage in "clear and conspicuous disclosures" of the sponsorship of search ads. Letter from Heather Hippsley to Gary Ruskin (June 27, 2002), *available at* http://www.ftc.gov/os/closings/staff/commercialalertletter.shtm.

[348] *See, e.g.*, Sable Comm. of Cal., Inc., v. FCC, 492 U.S. 115, 128 (1989) ("The message received by one who places a call to a dial-a-porn service is not so invasive or surprising that it prevents an unwilling listener from avoiding exposure to it.")

[349] *See, e.g.*, Rowan v. Post Office Dep't, 397 U.S. 728, 736 ("[A] sufficient measure of individual autonomy must survive to permit every householder to exercise control over unwanted mail."), *id.* at 738 (" If this prohibition operates to impede the flow of even valid ideas, the answer is that no one has a right to press even 'good' ideas on an unwilling recipient.").

listening has the potential to enrich First Amendment theory and doctrine. It could yield insights into the captive audience doctrine, the status of commercial speech, Internet filtering, targeted advertising, telecommunications regulation, and anonymous speech, among other topics.

And third, user autonomy is an important principle in computer and Internet law, one with implications well beyond search engines. Consider, for example, the problem of malware. Modern operating systems make it difficult or impossible to install unknown and untrusted software. These rules restrict users' choices about which software to run—but might they also enhance users' effective autonomy by protecting them from malware that disables their computers and spies on their online activity? Other issues that could benefit from a more systematic focus on user autonomy include digital rights management, unauthorized access to computer systems, online contracting, ad-blocking software, Do Not Track, and cell-phone unlocking.

As for the advisor theory itself, this way of thinking about search may seem cynical about the motivations of websites and search engines. Websites are clamoring to be found; they will attempt to trick search engines into ranking them highly; falling that, they will turn to the government and demand the same. Search engines, for their part, have the means to mislead users. Where their commercial interests are at stake, they can be expected to put those interests first if they expect to be able to get away with it. In any case pitting a website against a search engine, it is best to read the briefs with a grain of salt in each hand.

But cynicism should not be mistaken for pessimism. The story that the advisor theory tells is profoundly hopeful. It is hopeful about users' capacity for self-fulfillment, and it is hopeful about what better search will do for us all. Search is worth getting right because it matters, and will continue to matter as long as humans are still asking questions of the world and of each other.[350]

---

[350] *Cf.* VAIDHYANATHAN, *supra* note __, at 209 ("If we want to create a vital global public sphere for the digital era by offering the best and the most information to the largest number of people around the world . . . [w]e can't just hope that some big rich company will do it for us. That's simply irresponsible. . . . The future of knowledge—and thus the future of the species—depends on getting this right.")