
Article

Speech Engines

James Grimmelmann[†]

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INTRODUCTION

To understand Google, there are worse places to look than the *New York Times* editorial pages. Not because the *Times* has some special insight into this search colossus, 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 company, presenting the toughest allegations against it and the broadest defense of its actions. Each of them expresses something like the conventional wisdom 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 engines.¹

1. In a previous article, I presented a descriptive taxonomy of legal and policy issues relating to search engines. See generally James Grimmelmann, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1 (2007). This Article adds a normative framework for resolving those issues. Search engines are a distinctive category of interest for reasons spelled out in more detail *infra* Part III: their unique capacity to help numerous diverse users achieve their personal individual goals. Google will serve as the principal example, because of the long shadow it casts on American law, culture, and technology, but most of the discussion will be applicable more broadly to other search engines, such as Bing and DuckDuckGo. The Article will use the term “search” as an abstract noun to describe the social practice of using keyword-based search engines. This social practice, even more than Google or other search engines, is the Article’s true subject; once it is rightly understood, the question of how to regulate Google becomes far clearer.

In December 2009, the *Times* ran *Search, But You May Not Find* by Adam Raff, the co-founder of the United Kingdom-based search engine Foundem, in which he accused Google of slanting its search results to favor its own services.² Raff wrote that Foundem “was effectively ‘disappeared’ from the Internet” when it was demoted in Google’s search results.³ He called on the government to adopt a policy of “search neutrality” and protect websites like Foundem from Google’s dominance.⁴ His charges anticipated the “search bias” issues at the heart of the ambitious Federal Trade Commission (FTC) antitrust investigation of Google: complaints that Google unfairly favored its own maps and other specialized “vertical” content over others.⁵

But in January 2013, just after 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.⁶ Google, they argued, was like the Associated Press: protected by the First Amendment.⁷ In 1945, the Supreme Court held that antitrust law would not “compel [the Associated Press] or its members to permit publication of anything which their ‘reason’ tells them should not be published.”⁸ This same standard should apply to Google, Brown and Davidson argued, explaining that “search engines need to make choices

2. Adam Raff, Op-Ed., *Search, But You May Not Find*, N.Y. TIMES, Dec. 28, 2009, at A27.

3. *Id.* A search result is “demoted” when it moves from a prominent position to a less visible one, e.g., from the top search result on the first page of results to the sixth result on the twentieth page. Search rankings are described in more detail *infra* Part I, and the difficulties of defining a baseline against which to measure alleged demotion are discussed *infra* Part IV.

4. *Id.* (defining search neutrality as “the principle that search engines should have no editorial policies other than that their results be comprehensive, impartial and based solely on relevance”).

5. See Statement of the Fed. Trade Comm’n, *In re Google Inc.*, No. 111-0163 (Jan. 3, 2013). In addition to search bias, the FTC considered allegations that Google was copying content without permission from websites, unfairly making it difficult for advertisers to switch to competing search engines, and misusing standard-essential patents, among other issues. See generally Decision and Order, *In re Motorola Mobility*, No. 12-0120 (Jan. 3, 2013). In the end, it was this last prong that generated the strongest enforcement action. This Article focuses on search bias because it raises the most truly fundamental issues about what we as a society want from search engines.

6. See Bruce D. Brown & Alan B. Davidson, Op-Ed., *Is Google Like Gas or Like Steel?*, N.Y. TIMES, Jan. 4, 2013, at A17; Raff, *supra* note 2.

7. *Id.* (comparing the Associated Press’s concern “about a regulator in every newsroom” with Google’s concern “about a regulator in every algorithm”).

8. *Associated Press v. United States*, 326 U.S. 1, 20 n.18 (1945).

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.”⁹

These op-eds endorse two diametrically opposed theories of what a search engine is. To Raff, and to scholars like Jennifer Chandler¹⁰ and Frank Pasquale,¹¹ 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 Goldman¹² and Eugene Volokh,¹³ 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.¹⁴ 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.¹⁵

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

9. Brown & Davidson, *supra* note 6. 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. Davidson—before a stint as Director of Public Policy for the Americas for Google—worked on free expression issues for the Center for Democracy and Technology. See Andrew McLaughlin, *Google Goes to Washington*, GOOGLE OFFICIAL BLOG (Oct. 6, 2005), <http://googleblog.blogspot.com/2005/10/google-goes-to-washington.html>.

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

11. *E.g.*, Frank Pasquale, *Rankings, Reductionism, and Responsibility*, 54 CLEV. ST. L. REV. 115 (2006).

12. *E.g.*, Eric Goldman, *Search Engine Bias and the Demise of Search Engine Utopianism*, 8 YALE J.L. & TECH. 188 (2006).

13. Eugene Volokh & Donald M. Falk, *Google First Amendment Protection for Search Engine Search Results*, 8 J.L. ECON. & POL’Y 883 (2012).

14. See *infra* Part IV.

15. See *infra* Part V.C.

quality, which is entirely *subjective*.”¹⁶ 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].¹⁷ Google’s response: autocomplete suggestions are “the algorithmic result of several *objective* factors, including the popularity of search terms.”¹⁸ Google’s enemies are equally opportunistic: Google should objectively present the web as it

16. Dawn Kawamoto, *Suit over Poor Google Ranking May Go Forward*, CNET NEWS (June 30, 2006, 2:59 PM), http://news.cnet.com/Suit-over-poor-Google-ranking-may-go-forward/2100-1025_3-6090239.html (quoting David Kramer) (emphasis added). This is not an isolated statement; Google has made it repeatedly to courts. See *Kinderstart.com v. Google, Inc.*, No. C 06-2057 JF (RS), 2007 WL 831806, at *20–21 (N.D. Cal. Mar. 16, 2007) (“*Google itself* holds out PageRank as an opinion”); *Langdon v. Google, Inc.*, 474 F. Supp. 2d 622, 630 (D. Del. 2007) (comparing Google to newspapers that retain the freedom “to exercise subjective editorial discretion”); *Kinderstart.com v. Google, Inc.*, No. C 06-2057 JF (RS), 2006 WL 3246596, at *13–14 (N.D. Cal. July 13, 2006) (“Google also contends . . . PageRank cannot be anything *but* subjective.”); *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 WL 21464568, at *3–4 (W.D. Okla. May 27, 2003) (“Google argues that PageRanks are subjective opinions”). Google’s Eric Schmidt has also claimed, in Congressional testimony, “Search is subjective, and there’s no ‘correct’ set of search results.” *The Power of Google: Serving Consumers or Threatening Competition?: Hearing Before the Subcomm. on Antitrust, Competition Pol’y and Consumer Rights of the S. Comm. on the Judiciary*, 112th Cong. 238 (2011) (statement of Eric Schmidt, Executive Chairman, Google, Inc.) [hereinafter Schmidt Testimony].

17. Stefan Niggemeier, *Autocompleting Bettina Wulff: Can a Google Function Be Libelous?*, DER SPIEGEL (Sept. 20, 2012, 3:45 PM) (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.

18. *Id.* (emphasis added) (quoting unnamed Google spokesman) (internal quotation marks omitted); see also *An Explanation of Our Search Results*, GOOGLE, <http://www.google.com/explanation.html> (last visited Nov. 27, 2013) (capturing Google’s current explanation: “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. *An Explanation of Our Search Results*, GOOGLE (June 7, 2004), <http://web.archive.org/web/20040607132019/http://www.google.com/explanation.html> (capturing Google’s message in 2004: “Our search results are generated completely *objectively* Because of our *objective* and automated ranking system, Google cannot be influenced by these petitions [to remove particular links or otherwise adjust search results]” (emphasis added)).

is, except when that would be bad, in which case Google should subjectively step in to fix things.¹⁹

Others have noted the tension between these two theories of search.²⁰ 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' speech. 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 shooting] or [brining pheasants for smoking] or [baby splotchy rash with white

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

20. See, e.g., Frank Pasquale, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, 2008 U. CHI. LEGAL F. 263, 266 (questioning whether "dominant search engines" should have obligations or immunities); 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> ("So what is it, objective or subjective, or argue what's most convenient . . . [?]").

bumps] or [DIY subwoofer]—expresses a desire to become better-informed on a specific subject.²¹ 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 sa-

21. Except where a citation is provided, all examples of search queries in this Article are fictional.

ke; it is useful only as a way to find the websites whose speech the user really values.

Access and loyalty provide 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 theory, 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. If we care about access, then 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 if we care about loyalty, then Google is not yet off the hook. Search engines systematically measure user satisfaction with search results; they develop algorithms intended to return the results users want.²³ If Google shows tomato.com but knows that most users would have preferred to see tomato.org, it disserves users because it deceives them. The search results are not *wrong* in an absolute sense, but they 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. Google's favoritism towards its own maps, flights, and other vertical content 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 . . ."²⁴ 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.

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

23. See generally Steven Levy, *How Google's Algorithm Rules the Web*, WIRED, Mar. 2010, at 96.

24. Statement of the Fed. Trade Comm'n, *supra* note 5.

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

I. HOW SEARCH ENGINES WORK

This Part briefly explains how modern search engines work and how they display results to users. Readers who are familiar with terms like “organic results” and “universal search” should feel free to skip ahead to Part II.

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

The screenshot shows a Google search for "learn spanish". The search bar at the top contains the text "learn spanish" and a microphone icon. To the right of the search bar is a "Sign in" button. Below the search bar, it says "About 263,000,000 results (0.18 seconds)".

The results are divided into two columns of ads. The left column is titled "Ads related to learn spanish" and includes:

- Learn Spanish in 10 Days - World-famous Pimsleur Method.** From pimsleurapproach.com/Learn-Spanish. As seen on PBS - \$9.95 w/ Free S&H. 125 people +1'd or follow Pimsleur Approach.
- Learn Spanish** from www.rosettastone.com/. Fastest Way to Learn Spanish. Start Today with a Free Demo. 1,284 people +1'd or follow Rosetta Stone. Free Shipping - 5 Easy Pay Plan - More Languages - Shop Now.
- Learn Spanish** from www.studyspanish.com/. Learn Spanish with our free online tutorial with audio, cultural notes, grammar, vocabulary, verbs drills, and links to helpful sites. Spanish Grammar - Verb Drills - Spanish Translator - Spanish Vocabulary.
- Learn Spanish Free** from www.studyspanish.com/freesite.htm. Why in the world do we offer so much for free? Two reasons, really. First, we honestly enjoy helping people. But we also know that if you're serious, you'll want to ...
- Learn Spanish Washington DC** from www.studyspanish.com/destinations/spanish_in_washington.htm. Directory of Spanish Schools Abroad - Spanish in Your City - Online Translator - Newsletter - Useful Links - Bookstore - Home / Features & Resources / Spanish ...

The right column is titled "Ads - Why these ads?" and includes:

- Be Fluent in Spanish** from www.fluentz.com/. ★★★★★ 215 reviews for fluentz.com. Innovative software created by Harvard and Cornell grads.
- Free Online Spanish!** from www.freeworldu.org/. Learn to speak Spanish with ease using flashcards.
- Learn Spanish Free** from www.spanishprograms.com/. Learn Spanish Online with Free Interactive Spanish Lessons!
- Learn 1000 Spanish Words** from www.shortcutoSpanish.com/. Learn Easy Spanish You Can Use Fast. Learn 1000 Spanish Words Instantly.

At the bottom of the right column, there is a link: "See your ad here >".

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*.²⁶ The displayed portion of the results page shows three *organic links* and two sets of *sponsored links* (or *search ads*).²⁷ 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 *snippet*; a video is usually represented by a single frame. The ordinal position of a result is called its *ranking*.²⁸

The organic results are generated through a three-step process.²⁹ First, Google's computers *crawl* webpages and other sources to learn about what information they contain and how they link to each other.³⁰ Second, Google uses complex and time-consuming algorithms to analyze the pages and their relationships.³¹ These estimates are based on hundreds of *signals* that assess pages' importance and their *relevance* to particular search terms.³² 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.³³ 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.³⁴ All of this is complete-

25. See Levy, *supra* note 23 (explaining queries). 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).

26. See Levy, *supra* note 23.

27. See Grimmelmann, *supra* note 1, at 23.

28. See Pasquale, *supra* note 11. 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.

29. See BATTELLE, *supra* note 25, at 20.

30. *Id.*

31. *Id.* at 22.

32. Levy, *supra* note 23.

33. *Id.*

34. *Id.*

ly standard for modern search engines; only the specific signals differentiate one search engine from another.³⁵

Traditionally, there were two types of search engines.³⁶ “General” search engines indexed the entire web; “vertical” search engines narrowed their focus to a specific type of content, such as movies,³⁷ hotel bookings,³⁸ African-American themes,³⁹ or product comparisons.⁴⁰ Google initially expanded into vertical search with specialized local search, news search, and image search, each with its own URL.⁴¹ In May 2007, the company took an important step to break down these distinctions. It launched Universal Search, which “blend[ed] content from Images, Maps, Books, Video, and News into [Google’s] web results.”⁴² Here is an example showing a restaurant-themed search for [hamburgers in topeka 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.

35. *Id.*

36. See Statement of the Fed. Trade Comm’n, *supra* note 5 (“General purpose search engines are distinct from ‘vertical’ search engines, which focus on narrowly defined categories of content such as shopping or travel.”).

37. See, e.g., *Advanced Search*, IMDB, <http://www.imdb.com/search/> (last visited Nov. 27, 2013).

38. See, e.g., *HOTELS.COM*, <http://www.hotels.com> (last visited Nov. 27, 2013).

39. See, e.g., *AFROROOTS*, <http://www.afroroots.com> (last visited Nov. 27, 2013).

40. See, e.g., *PRICEGRABBER*, <http://www.pricegrabber.com> (last visited Nov. 27, 2013).

41. See, e.g., *News*, GOOGLE, <http://news.google.com> (last visited Nov. 27, 2013).

42. See Marissa Mayer, *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> (publicizing release of Google’s universal search).

Sign in

About 247,000 results (0.36 seconds)

Topeka Burger Joints | Urbanspoon
www.urbanspoon.com/f/306/33107/Topeka/Burger-Joints
 30+ items — **Topeka** - Breakfast/Brunch, **Burgers**, Soups 1034 S Kansas Ave ...
 21 Dairy Queen **Burgers**, Desserts/Ice Cream, Fast Food 2545 Iowa St
 24 Bill's Diner American, Breakfast/Brunch, **Burgers** 2134 N Kansas Ave

The Burger Stand Topeka Kansas | Food + Flicks
food.topeka.net/food/burger-stand
 The **Burger Stand** opened on Sept. 8, 2011. Robert Krause started one of **Topeka's** trendiest eateries — New City Cafe — and now his newest creation, The ...

Burgers Restaurants in Topeka Kansas | Food + Flicks
food.topeka.net/food/cuisine/burgers
 Tucked away in the Walmart, 1-470, water tower neighborhood in south **Topeka**, 39th Street Bar and Grill opened in February 2011 in the former location of Jax.

Bobo's Drive In
plus.google.com
 Score: **24** / 30 - 57 Google reviews

Cheeburger Cheeburger Restaurants, Inc.
www.cheeburger.com/
 8 Google reviews

Quinton's Bar & Deli

A 2300 Southwest 10th Avenue
Topeka
(785) 234-4511

B 2919 SW Wanamaker Rd
A
Topeka
(785) 215-6550

C 4121 Southwest Huntoon

Map for hamburgers in topeka ks

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 market⁴³ and upwards of 90% in some European countries⁴⁴—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.

The plan of this Part is simple: Section A presents the conduit theory and Section B the editor theory. Section C then

43. 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.

44. Paul Geitner, *Google Moves Toward Settlement of European Antitrust Investigation*, N.Y. TIMES, July 25, 2012, at B3.

highlights three important and interesting contrasts between the two.

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.⁴⁵

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.⁴⁶ 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.⁴⁷

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.⁴⁸ 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.⁴⁹ Telecommunications law’s long history of nondiscrimination rules,⁵⁰ from the treatment of tele-

45. Email to James Grimmelman (Jan. 26, 2013) (on file with author).

46. See INITIATIVE FOR A COMPETITIVE ONLINE MARKETPLACE, GOOGLE UNDER THE ANTITRUST MICROSCOPE 12–13 (2011), available at http://ec.europa.eu/information_society/newsroom/cf/pillar.cfm.

47. See Langdon v. Google Inc., 474 F. Supp. 2d. 622, 626 (D. Del. 2007).

48. 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 Marjorie Heins & Eric M. Freedman, *Reclaiming the First Amendment: Constitutional Theories of Media Reform*, 35 HOFSTRA L. REV. 917 (2007) (symposium issue on the 40th anniversary of Barron’s original article); Symposium, *Access to the Media: 1967 to 2007 and Beyond: A Symposium Honoring Jerome A. Barron’s Path-Breaking Article*, 76 GEO. WASH. L. REV. 819 (2008) (same).

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

50. See generally Daniel A. Lyons, *Net Neutrality and Nondiscrimination Norms in Telecommunications*, 54 ARIZ. L. REV. 1029 (2012); Tim Wu, *Why*

phone and telegraph as common carriers⁵¹ to the recent push for network neutrality,⁵² embody this philosophy. So did right-of-reply statutes⁵³ and the Federal Communications Commission's late fairness doctrine,⁵⁴ both of which compelled mass media to present opposing viewpoints.⁵⁵ In each case, the medium is regarded as a *conduit*: it exists to carry the speech of others.⁵⁶

With the rise of the Internet and of Google, scholars have extended this argument to search engines.⁵⁷ The argument requires one significant modification, because search engines are not “means of speech”⁵⁸ like printing presses or cable networks. Instead, they are “selection intermediaries”⁵⁹ that direct users to one information provider or another.⁶⁰ 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.”⁶¹

Have a Telecommunications Law? Anti-Discrimination Norms in Communications, 5 J. TELECOMM. & HIGH TECH. L. 15 (2006).

51. See 47 U.S.C. § 202 (2006) (prohibiting “any unjust or unreasonable discrimination” by common carriers).

52. See FED. COMM'NS COMM'N, REPORT AND ORDER: PRESERVING THE FREE AND OPEN INTERNET, No. 10-201 (2010).

53. See *Miami Herald Publ'g Co. v. Tornillo*, 418 U.S. 241, 244 (1974) (describing Florida's right-of-reply statute).

54. See *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 373–86 (1969) (describing history of fairness doctrine).

55. See generally *Television Assignments*, 41 F.C.C. 148, 158–67 (1952) (reserving television channels for educational broadcasting); *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180 (1997) (upholding statute requiring cable operators to carry certain local broadcast television stations).

56. See Oren Bracha & Frank Pasquale, *Federal Search Commission?: Access, Fairness, and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149, 1199 (2008) (“[S]earch engine rankings play a central *instrumental* role in facilitating effective speech by others.”); Emily B. Laidlaw, *Private Power, Public Interest: An Examination of Search Engine Accountability*, 17 J.L. INFO & TECH. 113, 122 (2008) (“The media's core role is to publish.”); see also Note, *Against Search Engine Volition*, 18 ALB. L.J. SCI. & TECH. 205, 223 (2008) (“[T]he search engine's effective function is to serve as a conduit between third parties.”).

57. See, e.g., Lucas D. Introna & Helen Nissenbaum, *Shaping the Web: Why the Politics of Search Engines Matter*, 16 INFO. SOC'Y 169, 169–70 (2000) (drawing parallels between debates about other media and search engines on the Internet).

58. Chandler, *supra* note 10, at 1097.

59. *Id.*

60. See Laidlaw, *supra* note 56, at 123–26.

61. 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., Niva Elkin-Koren, *Let the Crawlers Crawl: On Virtual Gatekeepers and the Right to Ex-*

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.⁶² Some scholars have argued that websites should have an affirmative right to be included in search engine indices.⁶³ Most recently, some observers have proposed “search neutrality” rules by analogy to network neutrality.⁶⁴ They all agree that the legal system should ensure that a diverse array of information providers can be found through search engines⁶⁵—that the search engine is a conduit for their ideas.⁶⁶

clude Indexing, 26 U. DAYTON L. REV. 179, 183 (2001) (“[F]ocal point of control”); Editorial, *The Google Algorithm*, N.Y. TIMES, July 15, 2010, at A30 (“[T]hey can break the business of a Web site that is pushed down the rankings.”).

62. See, e.g., Elkin-Koren, *supra* note 61, at 184 (comparing Internet users to television viewers); Laidlaw, *supra* note 56, at 123–37 (“Within the regulatory models in traditional media, the Internet adopts some of all three functions.”). But see, e.g., Bracha & Pasquale, *supra* note 56, at 1157 (“Internet communication does not possess the characteristics that supported broad regulation of broadcast media.”).

63. Pasquale, *supra* note 11, at 135–36 (2006) (proposing right of reply to harmful search results with asterisk); see, e.g., DAWN NUNZIATO, VIRTUAL FREEDOM 14–17, 149–51 (2009); Chandler, *supra* note 10, at 1117–25; Dawn Nunziato, *Death of the Public Forum in Cyberspace*, 20 BERK. TECH. L.J. 1115, 1123–25 (2005). But see James Grimmelman, *Don’t Censor Search*, 117 YALE L.J. POCKET PART 48 (2007), <http://Yalelawjournal.org/images/pdfs/582.pdf> (critiquing asterisk); Frank Pasquale, *Asterisk Revisited: Debating a Right of Reply on Search Results*, 3 J. BUS. & TECH. L. 61 (2008) (defending asterisk).

64. Nate Anderson, *Search Neutrality? How Google Became a Neutrality Target*, ARS TECHNICA (Apr. 29, 2010, 9:32 PM), <http://arstechnica.com/tech-policy/2010/04/search-neutrality-google-becomes-neutraliy/> (describing history of idea); see also John Blevins, *The New Scarcity: A First Amendment Framework for Regulating Access to Digital Media Platforms*, 79 TENN. L. REV. 353 (2012); Jeremy Jarosch, *Novel “Neutrality” Claims Against Internet Platforms: A Reasonable Framework for Initial Scrutiny*, 59 CLEV. ST. L. REV. 537 (2011); Andrew Odlyzko, *Network Neutrality, Search Neutrality, and the Never-Ending Conflict Between Efficiency and Fairness in Markets*, 8 REV. NETWORK ECON. 40 (2009); Raff, *supra* note 2. The Foundem-founded website SearchNeutrality.org offers a useful roundup of links and commentary on the pro-search-neutrality side. SEARCHNEUTRALITY.ORG: A FOUNDEM INITIATIVE, <http://www.searchneutrality.org> (last visited Nov. 27, 2013). For a contrasting point of view, see James Grimmelman, *Some Skepticism About Search Neutrality*, in THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET 435–47 (Berin Szoka & Adam Marcus eds., 2010).

65. 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 DATA-

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”⁶⁷ or that Google is “the main map to the information highway”⁶⁸ appeal to an ideal of accuracy and objectivity.⁶⁹ Oren Bracha and Frank Pasquale propose that search results be treated like maps, and the intuitive justification is simple.⁷⁰ A good map shouldn’t say that there’s a bridge where there isn’t one in real life.⁷¹

The related traffic metaphor is even sharper. Saying that a search engine delivers “traffic”⁷² to websites implies that search is a kind of transportation infrastructure.⁷³ When Google “divert[s] traffic,” the metaphor suggests an unwanted detour, like orange cones forcing users off the highway at the Google exit.⁷⁴

BASES (2005), *available at* <http://www.cs.cmu.edu/~spandey/publications/randomRanking-vldb.pdf>.

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

67. Introna & Nissenbaum, *supra* note 57, at 171.

68. *The Google Algorithm*, *supra* note 61.

69. *See* Grimmelmann, *supra* note 1, at 31–33.

70. Bracha & Pasquale, *supra* note 56, at 1194 n.238. The authors also compare search results to directory listings, concluding, “It is hard to conceive of a phone book as embodying any constitutionally protected message.” *Id.*

71. Of course, maps can be inaccurate and intensely political; there are sometimes sharp controversies over what maps do and do not show. *See generally* MARK MONMONIER, *HOW TO LIE WITH MAPS* (2d ed. 1996). Google has had a few unfortunate encounters with this phenomenon. *See* Frank Jacobs, *The First Google Maps War*, N.Y. TIMES OPINIONATOR (Feb. 28, 2012, 12:30 PM), <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. 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); *infra* Part IV.B (discussing tort liability for publishers of inaccurate maps).

72. *See, e.g.*, CONSUMER WATCHDOG, *TRAFFIC REPORT: HOW GOOGLE IS SQUEEZING OUT COMPETITORS AND MUSCLING INTO NEW MARKETS* 15 (2010); *INITIATIVES FOR A COMPETITIVE MARKET*, *supra* note 46, at 8.

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

74. *See* Alex Barker, *Antitrust Chief Holds All the Aces*, FIN. TIMES (London), Jan. 11, 2013, at 17 (quoting Joaquín Almunia, European Commissioner for Competition); *see also, e.g.*, ADAM RAFF & SHIVAUN 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

It also downplays any speech element in search; driving is a form of conduct, not communication.⁷⁵ As Bracha and Pasquale put it, “[r]ankings are functional rather than dialogical expressions.”⁷⁶

The bias metaphor describes what happens when search engines fall short of this ideal.⁷⁷ Friedman and Nissenbaum define “biased” computer systems as ones that “*systematically and unfairly discriminate* against certain individuals or groups of individuals in favor of others.”⁷⁸ 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.⁷⁹ These biases could be large and subtle—towards commercial content or popular sites⁸⁰—or they could be specific and targeted to advance the

website or industry sector it chooses.”); Grimmelmann, *supra* note 1, at 27–30.

75. Cf. Bracha & Pasquale, *supra* note 56, at 1197 (comparing search result to seller offering “three alternative products in response to a buyer’s inquiry”).

76. *Id.* at 1198.

77. The metaphor is pervasive in academic critiques of Google. For examples of papers that use the metaphor in the title, see Benjamin Edelman, *Bias in Search Results? Diagnosis and Response*, 7 INDIAN J.L. & TECH. 16 (2011); Goldman, *supra* note 12; Joshua G. Hazan, *Stop Being Evil: A Proposal for Unbiased Google Search*, 111 MICH. L. REV. 789 (2013); Introna & Nissenbaum, *supra* note 57; Alejandro Diaz, *Through the Google Goggles: Sociopolitical Bias in Search Engine Design* (May 2005) (unpublished undergraduate thesis, Stanford University), available at http://epl.scu.edu/~stsvalues/readings/diaz_thesis_final.pdf.

The most remarkable—and embarrassing for Google—use of the term must be by Google’s founders. See SERGEY BRIN & LAWRENCE PAGE, *THE ANATOMY OF A LARGE-SCALE HYPERTEXTUAL WEB SEARCH ENGINE* app. A (1998), available at <http://ilpubs.stanford.edu:8090/361/1/1998-8.pdf> (“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. See *The Power of Google: Serving Consumers or Threatening Competition?: Hearing Before the Subcomm. on Antitrust, Competition Policy, & Consumer Rights of the S. Comm. On the Judiciary*, 112th Cong. 28 (2011) (testimony of Jeremy Stoppelman, CEO, Yelp! Inc.) [hereinafter Stoppelman Testimony]; Jeffrey Katz, Op-Ed., *Google’s Monopoly and Internet Freedom*, WALL ST. J., June 8, 2012, at A15, available at <http://online.wsj.com/news/articles/SB10001424052702303830204577448792246251470> (stating that Google has “stacked the deck”).

78. Batya Friedman & Helen Nissenbaum, *Bias in Computer Systems*, 14 ACM TRANSACTIONS ON INFO. SYS. 330, 332 (1996).

79. See, Chandler, *supra* note 10, at 1103; James Grimmelmann, *Information Policy for the Library of Babel*, 3 J. BUS. & TECH. L. 29, 39 (2008) (“Search engines can play favorites.”); Introna & Nissenbaum, *supra* note 57, at 176 (“skewed”).

80. 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). See generally MATTHEW

search engine's own commercial interests.⁸¹ But whatever form it takes, bias is bad.⁸²

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' in search, because *any* ranking is biased *by what the search engine thinks is best*."⁸³ 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.⁸⁴

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."⁸⁵ Editor theorists agree that search results are "editorial judgments" about which websites might be of interest to users.⁸⁶ Search engines are editors that pick and

HINDMAN, THE MYTH OF DIGITAL DEMOCRACY 54–57 (2009) (discussing "Googelearchy" in which popular sites become even more popular); Laidlaw, *supra* note 56, at 129; Diaz, *supra* note 77, at 62–94.

81. See generally Bracha & Pasquale, *supra* note 56, at 1170; Edelman, *supra* note 77, at 19 (describing informal experiment to show pro-network neutrality bias in search results of network neutrality supporter Google); Friedman & Nissenbaum, *supra* note 78, at 330–31 (describing biases in computerized reservation systems favoring the systems' airline owners).

82. See BEUC, FAIR INTERNET SEARCH: REMEDIES IN GOOGLE CASE 5 (2013), available at <http://www.beuc.org/custom/2013-00211-01-E.pdf> ("Google must use an objective, non-discriminatory mechanism to rank and display all search results, including any links to Google products.").

83. Mike Masnick, *A Recommendation Is Not the Same as Corruption*, TECHDIRT (June 21, 2010, 8:07 PM), <http://www.techdirt.com/articles/20100621/0355239887.shtml>.

84. Goldman, *supra* note 12, at 189; see also Christopher S. Yoo, *Free Speech and the Myth of the Internet as an Unintermediated Experience*, 78 GEO. WASH. L. REV. 697, 708 (2010) ("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.").

85. Steven Levy, *TED 2011: The 'Panda' That Hates Farms: A Q&A with Google's Top Search Engineers*, WIRED NEWS (Mar. 3, 2011, 1:36 PM), <http://www.wired.com/business/2011/03/the-panda-that-hates-farms/all/>.

86. See Eric Goldman, *Revisiting Search Engine Bias*, 38 WM. MITCHELL

choose among preexisting materials to generate a new presentation.⁸⁷ Making the necessary choices requires the exercise of discretion and judgment.⁸⁸ Google even holds a patent on a “[s]ystem and method for supporting editorial opinion in the ranking of search results.”⁸⁹

The editor theory has its own long and distinguished tradition in free speech law and theory.⁹⁰ 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.⁹¹ 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*.⁹² In

L. REV. 96, 106 (2011) (“editorial discretion”); Goldman, *supra* note 12, at 189 (“editorial choices”); *id.* at 190 (“editorial judgments”); Volokh & Falk, *supra* note 13, *passim*; Brown & Davidson, *supra* note 6 (“editorial judgment”); Danny Sullivan, *The New York Times Algorithm & Why It Needs Government Regulation*, SEARCH ENGINE LAND (Jul. 15, 2010, 2:07 PM), <http://searchengineland.com/regulating-the-new-york-times-46521> (“editorial judgment”).

87. See, e.g., Volokh & Falk, *supra* note 13, at 890 (“[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 (2012) (“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.”).

88. See Volokh & Falk, *supra* note 13, at 891 (“The First Amendment protects the decisions to include or exclude others’ content, based on the speakers’ exercise of their judgment”).

89. U.S. Patent No. 7,096,214 (filed Dec. 13, 2000).

90. 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”).

91. See *Pell v. Procunier*, 417 U.S. 817, 832 (1972) (“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 quotation marks omitted)); *Associated Press v. United States*, 326 U.S. 1, 20 (1944) (“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.”).

92. See Schmidt Testimony, *supra* note 16 (“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

response to a *Times* editorial calling for greater scrutiny of Google's search results,⁹³ search industry analyst Danny Sullivan wrote a scathing response turning the editorial's arguments back on the newspaper.⁹⁴ "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."⁹⁵ The argument for regulating the *Times*' editorial meetings is meant to be absurd, and thereby to illustrate the absurdity of the *Times*' argument for regulating search rankings.⁹⁶

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,⁹⁷ the number of distinct signals on which it relies,⁹⁸ the number of changes it makes a year,⁹⁹ the extensive work that goes into assessing and improving the results.¹⁰⁰ These points are directed to showing that regulation of

freedom of speech, so too would government-mandated results likely violate Google's freedom of speech."); Goldman, *supra* note 12, at 189 ("Search engines are media companies."); Volokh & Falk, *supra* note 13, at 884–85 (comparing search engines to newspapers); *id.* at 888 ("[S]earch engine companies are rightly seen as media enterprises, much as the New York Times Company or CNN are media enterprises."); Brown & Davidson, *supra* note 6 ("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."); Sullivan, *supra* note 86; *cf.* Chandler, *supra* note 10, at 1126–29 (acknowledging similarity between selection intermediaries and newspapers but arguing for constitutionality of transparency and anti-blocking rules).

93. *The Google Algorithm*, *supra* note 61.

94. Sullivan, *supra* note 86.

95. *Id.*

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

97. See James Grimmelman, *The Google Dilemma*, 53 N.Y.L. SCH. L. REV. 939, 940 (2009); Volokh & Falk, *supra* note 13, at 891 ("Search engines are vastly more selective . . .").

98. See, e.g., Schmidt Testimony, *supra* note 16. See generally Levy, *supra* note 23 (describing signals).

99. Schmidt Testimony, *supra* note 16. For examples, see Pandu Nayak, *Search Quality Highlights: 65 Changes for August and September*, GOOGLE INSIDE SEARCH (Oct. 4, 2012, 9:12 AM), <http://insidesearch.blogspot.com/2012/10/search-quality-highlights-65-changes.html> (listing 65 algorithmic changes in 61 days).

100. See, e.g., Marissa Mayer, *Do Not Neutralize the Web's Endless Search*, FIN. TIMES (London) (July 15, 2010, 11:19 PM), <http://www.ft.com/intl/cms/s/0/0458b1a4-8f78-11df-8df0-00144feab49a.html#axzz2hj5r3qgT> ("Yet searching

search results would be futile,¹⁰¹ but they are also intended to demonstrate the human judgment involved.¹⁰² 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.¹⁰³ 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.¹⁰⁴ 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.¹⁰⁵ 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.¹⁰⁶ And a third is to argue that any regulation of search results would inhibit future advances.¹⁰⁷ All of these arguments take a romantic view of the search engineer: he (or she, but usually

the web has never been more complex.").

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

102. See, e.g., Goldman, *supra* note 12, at 190; Volokh & Falk, *supra* note 13, at 888 ("[T]he computer algorithms that produce search engine output are written by humans.").

103. Google, *Search Quality Meeting: Spelling for Long Queries (Annotated)*, YOUTUBE (Mar. 12, 2012), <http://www.youtube.com/watch?v=JtRJXnXgE-A>; see also Schmidt Testimony, *supra* note 16, at 3.

104. See Goldman, *Revisiting Search Engine Bias*, *supra* note 86, at 102–05. "Ten blue links" is an informal search-engine industry term that refers to the sparse look of a circa-2000 search engine results page: ten results, each with a hyperlink in blue, and some descriptive text under each. See generally Romy Kohavi, *Ten Blue Links No More: Dynamic Page Sizing*, BING BLOGS (Apr. 24, 2013), http://www.bing.com/blogs/site_blogs/b/searchquality/archive/2013/04/24/ten-blue-links-no-more-dynamic-page-sizing.aspx (describing the ten blue links and the decreasing utility of such a format). The term's emphasis is on what it excludes: images, maps, oneboxes, and other ways of presenting information. *Id.*

105. See, e.g., Ammori & Pelican, *supra* note 101, at 10–11.

106. See Schmidt Testimony, *supra* note 16, at 3–4; cf. Sullivan, *supra* note 86 (describing Yahoo!'s fall from dominance of the web).

107. See, e.g., Ammori & Pelican, *supra* note 101, at 19–20; Goldman, *supra* note 12, at 197–98; Grimmelmann, *supra* note 63, at 50; Mayer, *supra* note 100.

he) is a creative technical genius whose talents society should harness by respecting his freedom to innovate.¹⁰⁸

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.”¹⁰⁹ Regulation to ensure that a search engine provides access to speech by websites would not interfere with any valuable speech by the search engine.¹¹⁰

In sharp contrast, editor theorists focus not on websites’ speech, 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.¹¹¹ 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.¹¹²

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.¹¹³ A claim of bias implies the possibility of

108. Cf. Susan P. 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).

109. Bracha & Pasquale, *supra* note 56, at 1193.

110. *Id.* at 1192; Chandler, *supra* note 10, at 1129.

111. Volokh & Falk, *supra* note 13, at 884; see also *Langdon v. Google*, 474 F. Supp. 2d 622, 629–30 (D. Del. 2007); 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 . . .”).

112. See Volokh & Falk, *supra* note 13, at 884. But see Grimmelmann, *supra* note 63, at 50 (“Search engines aren’t megaphones . . .”).

113. See, e.g., Introna & Nissenbaum, *supra* note 57, at 172–73 (critiquing assumption that particular technical processes used by search engines “are a

its absence.¹¹⁴ Search engine bias is deviation from an objective ideal.¹¹⁵ Conduit theorists have turned Google's own words against it to argue that search is objective and impersonal.¹¹⁶ 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.¹¹⁷

On the editor theory, search results are inherently subjective because they express a search engine's "opinion" about websites.¹¹⁸ 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.¹¹⁹ Instead of decrying "bias," the editor theory celebrates it. Eric Goldman calls it "the unavoidable consequence of search engines' editorial control over their databases."¹²⁰ Others go further, arguing that "bias" is a valuable expression of the

reliable indication of importance or relevance").

114. Stoppelman Testimony, *supra* note 77, at 37 ("Google *artificially* promotes its own properties regardless of merit." (emphasis added)); Chandler, *supra* note 10, at 1105 ("The key opportunity presented by the Internet is unfiltered and essentially unbiased access to a vast quantity of speech"); Katz, *supra* note 77 ("Google should provide consumers with access to the unbiased search results it was once known for . . .").

115. See generally Edelman, *supra* note 77, at 21–23 (discussing construction of objective baseline for measuring bias). But see Joshua D. Wright, *Defining and Measuring Search Bias: Some Preliminary Evidence* (Geo. Mason L. & Econ., Working Paper No. 12-14, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2004649 (disputing Edelman's methodology); cf. Adam Raff & Shivaun Raff, *Would the Real Search Neutrality Please Stand Up*, ORGZINE (May 30, 2012), <http://zine.openrightsgroup.org/features/2012/would-the-real-search-neutrality-please-stand-up> (acknowledging that there is no "right" answer to many searches but arguing that "any genuine pursuit of the most relevant results must, by definition, preclude any form of arbitrary discrimination.").

116. Introna and Nissenbaum discuss and critique Yahoo!'s self-presentations. Introna & Nissenbaum, *supra* note 57, at 172. For a general discussion of the rhetoric used by search engineers, see Elizabeth Van Couvering, *Is Relevance Relevant? Market, Science, and War: Discourses of Search Engine Quality*, 12 J. COMPUTER-MEDIATED COMM. 866, 879 (2007).

117. See Bracha & Pasquale, *supra* note 56, at 1192; Richard Siklos, *A Struggle Over Dominance and Definition*, N.Y. TIMES, Nov. 12, 2006, at B5 (quoting David Eun, a Google vice president, as saying, "I would say we're a conduit connecting our users with content and advertisers").

118. Ammori & Pelican, *supra* note 101, at 17. For more extensive discussion of the status of search results as opinions, see *infra* Part IV.

119. Volokh & Falk, *supra* note 13, at 884–85; Goldman, *Search Engine Bias*, *supra* note 12, at 191 n.15; Ammori & Pelican, *supra* note 101 at 13, 19; Mayer, *supra* note 100; Grimmelmann, *supra* note 64, at 443–44.

120. Goldman, *supra* note 12, at 195.

search engine's own valuable opinions about content.¹²¹ For them, neutrality is neither possible nor desirable.¹²²

A third point of disagreement is also revealing: competition. Conduit theorists describe the search market as concentrated and hard to break into,¹²³ so that Google in particular has substantial market power.¹²⁴ Most Internet users find information through search engines.¹²⁵ 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.¹²⁶ The result is that search engines are therefore “gatekeepers” or “bottlenecks” on the Internet,¹²⁷ so that websites are utterly dependent on search engines.¹²⁸ A website that drops in

121. Volokh & Falk, *supra* note 13, at 893.

122. *Id.* (“[S]ome hypothetical and undefined expectations of abstract objectivity.”); Goldman, *supra* note 12, at 195 (“[S]earch engines simply cannot passively and neutrally redistribute third party content.”). Goldman, *supra* note 86, at 107 (“[N]eutral search engines . . . are entirely mythical.”).

123. INITIATIVE FOR A COMPETITIVE ONLINE MARKETPLACE, *supra* note 46, at 30–31; Bracha & Pasquale, *supra* note 56, at 1180–86. *See generally* FAIRSEARCH, FAIRSEARCH FACT SHEET: GOOGLE’S CONDUCT THREATENS CONSUMERS AND INNOVATION (2013), available at <http://www.fairsearch.org/wp-content/uploads/2011/06/Draft-Core-FairSearch-Fact-Sheet-051812.pdf> (collecting sources).

124. *See, e.g.*, Mark R. Patterson, *Google and Search Engine Market Power*, 2013 HARV. J. L. & TECH. OCCASIONAL PAPER SERIES 1, 23 (2013).

125. *See* Laidlaw, *supra* note 56, at 126 (search engines are “indispensable”).

126. *See* Bernard J. Jansen et al., *Determining the Informational, Navigational, and Transactional Intent of Web Queries*, 44 INFO. PROCESSING & MGMT. 1251 (2008); Bing Pan et al., *In Google We Trust: Users’ Decisions on Rank, Position, and Relevance*, 12 J. COMPUTER MEDIATED COMM. 801, 806–07 (2007).

127. *See, e.g.*, FAIRSEARCH, GOOGLE’S TRANSFORMATION FROM GATEWAY TO GATEKEEPER: HOW GOOGLE’S EXCLUSIONARY AND ANTICOMPETITIVE CONDUCT RESTRICTS INNOVATION AND DECEIVES CONSUMERS 11 (2011); Bracha & Pasquale, *supra* note 56, at 1150–51 (“Located at bottlenecks of the information infrastructure, search engines exercise extraordinary control over data flow in a largely decentralized network.”); Elkin-Koren, *supra* note 61, at 180 (“the new virtual gatekeepers of cyberspace”).

128. *See, e.g.*, Grimmelmann, *supra* note 64, at 447 n.85 (collecting examples); INITIATIVE FOR A COMPETITIVE ONLINE MARKETPLACE, *supra* note 46, at 7–13 (collecting European examples); Introna & Nissenbaum, *supra* note 57 at 180; Elkin-Koren, *supra* note 61, at 184–85 (“If you are not listed in the search results you are almost nonexistent on the web.”); Pasquale, *Asterisk Revisited*, *supra* note 63, at 79 (“make-or-break power over internet-based businesses”); *The Power of Google: Serving Consumers or Threatening Competition?: Hearing Before the Subcomm. on Antitrust of the S. Comm. on the Judiciary*, 112th Cong. 183 (2011) (written statement of Thomas O. Barnett, Partner, Covington & Burling) (“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

search rankings is “effectively ‘disappeared’ from the Internet.”¹²⁹

The editor theory takes a very different view of competition in the search market.¹³⁰ In a phrase that Google has made a mantra, “Competition is one click away.”¹³¹ It emphasizes the existence of multiple search options,¹³² low user switching costs to change search engines,¹³³ consumers’ regular use of multiple search engines,¹³⁴ the entry of new specialized search engines,¹³⁵ and competition from other platforms like Twitter and Facebook.¹³⁶ 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.¹³⁷ 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.¹³⁸

by a search engine.”).

129. 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 & Nissenbaum, *supra* note 57, at 180 (noting that search engines wield power over websites in “making others, essentially, disappear”). A related idea is that Google is a “killer.” See Katz, *supra* note 77 (“brand killer”); Stoppelman Testimony, *supra* note 77 (“I wonder if we would have been able to start Yelp today given Google’s recent actions.”).

130. See Goldman, *supra* note 12, at 195–96.

131. *Competition*, GOOGLE U.S. PUBLIC POLICY, <http://www.google.com/publicpolicy/issues/competition.html> (last visited Nov. 27, 2013); Schmidt Testimony, *supra* note 16, at 6; Adam Kovacevich, *Google’s Approach to Competition*, GOOGLE PUB. POLICY BLOG (May 8, 2009, 9:24 AM), <http://googlepublicpolicy.blogspot.com/2009/05/googles-approach-to-competition.html>.

132. See, e.g., Volokh & Falk, *supra* note 13, at 884.

133. See, e.g., *id.* at 893–94.

134. See, e.g., Schmidt Testimony, *supra* note 16, at 132 (responding to Sen. Grassley); Ammori & Pelican, *supra* note 101, at 11.

135. See, e.g., Goldman, *supra* note 12, at 197.

136. See, e.g., Goldman, *supra* note 86, at 99–100.

137. See, e.g., Schmidt Testimony, *supra* note 16, at 3–4.

138. See, e.g., Brief for Defendant, *Infederation Ltd. v. Google Inc.*, [2013] EWHC (Ch) No. HC12A02489, [15.2] (Eng.) (“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 free 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, su-*

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.

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.¹³⁹

For centuries, the idea that there is simply too much information in the world has been a persistent source of anxiety.¹⁴⁰ 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.¹⁴¹ The web contains over a trillion different webpag-

pra note 64, at 447–48 (questioning websites' entitlement to traffic from search engines).

139. Vannevar Bush, *As We May Think*, ATLANTIC MONTHLY, July 1945, at 118.

140. For histories of attempts to grapple with the problem, see, for examples, ANN BLAIR, *TOO MUCH TO KNOW: MANAGING SCHOLARLY INFORMATION BEFORE THE MODERN AGE* (2010); JAMES GLEICK, *THE INFORMATION: A HISTORY, A THEORY, A FLOOD* (2012); ALEX WRIGHT, *GLUT: MASTERING INFORMATION THROUGH THE AGES* (2007).

141. JOHN GANTZ & DAVID REINSEL, *IDC IVIEW: EXTRACTING VALUE FROM CHAOS 1* (2011).

es.¹⁴² The world has over two billion Internet users, *every single one of whom* is a potential speaker.¹⁴³ 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.¹⁴⁴ 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 way would be to try to identify the best information sources and make sure they can be heard through the cacophony. Although they differ on the details, 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 remark-

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

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

144. See KEVIN KELLY, OUT OF CONTROL 258–63 (1994) (discussing Library of Babel as a search problem); Grimmelmann, *supra* note 79 (giving extended metaphor of the Internet as Borges's infinite Library).

able 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.¹⁴⁵

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.¹⁴⁶ Search engines can advance this goal, as the editor theory explains, by expressing judgments about websites.¹⁴⁷ 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.

This characterization suggests a third normative theory for evaluating search: a search engine should be a helpful, trustworthy *advisor*.¹⁴⁸ An ideal advisor would have several important characteristics. It would adopt the user’s agenda, rather than trying to persuade the user of its own. It would be perfectly omniscient; if the sought-after information exists at

145. See *Welcome to Under the Hood*, GOOGLE INSIDE SEARCH (Jan. 28, 2011), <http://www.google.hu/insidesearch/underthehood.html>.

146. See *supra* Part II.A.

147. See *supra* Part II.B.

148. This view of “advice” puts significant emphasis on its personalization. A query-driven search engine of the sort discussed in this Article customizes its results based on the queries a user enters, and often based on other characteristics of the user that it is able to determine. Although there is obviously a continuum between personalized and nonpersonalized advice—think of a horoscope, which is personalized to the minimal extent of giving the reader one of twelve different canned scripts—the distinction is in general significant. See, e.g., *Lowe v. S.E.C.*, 472 U.S. 181, 183 (1985) (holding that publishers of “nonpersonalized investment advice and commentary” are not regulated by the Investment Advisors Act of 1940).

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.¹⁴⁹ They seek out the speech they wish to hear and avoid 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 efficiency.¹⁵⁰

First, and most importantly, putting search users first promotes autonomy, "an individual's capacity to author her life," on two levels.¹⁵¹ First, there is the ability to choose appro-

149. 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.

150. 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.

151. Yochai Benkler, *Siren Songs and Amish Children: Autonomy, Information, and Law*, 76 N.Y.U. L. REV. 23, 35 (2001). Autonomy is a contested concept with multiple overlapping meanings. The sense in which it is used here is based primarily on Benkler, at 32–41 and JOSEPH RAZ, *THE MORALITY OF FREEDOM* 368–429 (1986). "An autonomous person's well-being consists in the successful pursuits of self-chosen goals." RAZ, *supra*, at 370. Three features of this definition are significant. First, autonomy in this sense is a theory of "well-being": a person can be more or less autonomous by degrees, and a person is better off the more autonomous she is. See Benkler, *supra*, at 33–34. Second, the person's goals are "self-chosen": this form of *personal* autonomy should be contrasted to the Kantian ideal of *moral* autonomy, in which autonomy consists in the rationally self-chosen adoption of universal moral laws. See RAZ, *supra*, at 370 n.2. And third, this conception of autonomy requires "successful" pursuit of one's goals; it is therefore a theory of capabilities and not just of authenticity.

This section deals only with a specific subset of obstacles to autonomy. One's autonomy can fail because of either "internal" or "external" constraints.

priate actions for achieving one's goals. A farmer cares about [sorghum yield improvement]; a questioning teen about [ways to tell if your gay]. Both of them must make crucial decisions. For them, as for all of us, knowing enough about their options and their likely consequences can make the difference between success and failure, fulfillment and misery. They have, in other words, a powerful autonomy interest as listeners.¹⁵²

But very little of the information we want and need comes to us of its own accord: we must go in search of it. The right 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.¹⁵³ To be effective, this active process of seeking out information must include not just mere access to raw information, but also the ability to sort through it. Just as it is not sufficient to put the farmer and the teen in a field and shout at them the things we think they want

Benkler, *supra*, at 35–38. Internal constraints include the lack of "capacity" to make plans for achieving one's goals and the lack of "will" to stick to those plans once made. *Id.* at 35–36. External constraints, on the other hand, interfere either with one's ability to choose one's own goals or with one's ability to take actions that advance those goals. *See id.* at 36–38. And one's ability to take effective action can fail either because of a lack of options or a lack of knowledge about them. RAZ, *supra*, at 377–78. Out of these five kinds of obstacles—the lack of capacity, will, choice of goals, options, or knowledge—this section considers two: interference with one's choice of goals, and interference with one's knowledge of one's options for achieving those goals. In Raz's terminology, the section deals with "manipulation" and not with "coercion." *Id.* at 373.

152. For listener autonomy justifications of free speech protections, see, e.g., 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); Caroline Mala Corbin, *The First Amendment Right Against Compelled Listening*, 89 B.U. L. REV. 939, 953, 965 (2009); Richard H. Fallon Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875, 878 (1994); 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); Thomas Scanlon, *A Theory of Freedom of Expression*, 1 PHIL. & PUB. AFF. 204, 209 (1972); David A. Strauss, *Persuasion, Autonomy, and Freedom of Expression*, 91 COLUM. L. REV. 334, 355 (1991); Eugene Volokh, *Freedom of Speech in Cyberspace from the Listener's Perspective: Private Speech Restrictions, Libel, State Action, Harassment, and Sex*, 1996 U. CHI. LEGAL F. 377.

153. Universal Declaration of Human Rights, G.A. Res. 217(III)A, ¶ 19, U.N. Doc. A/RES/217(III) (Dec. 10, 1948); International Covenant on Civil and Political Rights, G.A. Res. 2200(XXI)A, ¶ 19(2), at 52, U.N. Doc. A/6316 (Dec. 19, 1966). *See generally* Molly Land, *Toward an International Law of the Internet*, 54 HARV. INT'L L.J. 393 (2013) (discussing the history and interpretation of these provisions of the UDHR and ICCPR).

to learn, it is not sufficient to sit them down at a keyboard and tell them to have at it. “Selection,” as Vannevar Bush called it, is the missing link.¹⁵⁴

In particular, empowering users with search protects their autonomy from manipulation.¹⁵⁵ 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.

Access to information, of which the ability to search is a crucial component, also matters to autonomy for a second reason. Our goals themselves—not just the means for pursuing them—must be self-chosen for us to be truly autonomous.¹⁵⁶ We require what Michael Zimmer calls “intellectual mobility,” which he defines 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.”¹⁵⁷ The farmer’s goals—grow more sorghum—seem stable for now, but the teen is engaged in the painful process of determining (not merely discovering) who he is.¹⁵⁸ He will emerge with a newfound sense of how he wishes to live his life, one he could not have specified in advance. If his informational experience lacks queer voices because his search tools are unable to find them, the self-determination at the core of his autonomy is threatened.¹⁵⁹

154. Bush, *supra* note 128, at 121.

155. See RAZ, *supra* note 151, at 377–78 (discussing coercion and manipulation as constraints on independence); Benkler, *supra* note 151, at 38–49 (discussing role of information environment in limiting or promoting autonomy).

156. See Benkler, *supra* note 151, at 55. See generally GERALD DWORKIN, *THE THEORY AND PRACTICE OF AUTONOMY* (1988) (discussing preference-formation aspects of autonomy).

157. 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).

158. See JULIE E. COHEN, *CONFIGURING THE NETWORKED SELF: LAW, CODE, AND THE PLAY OF EVERYDAY PRACTICE* 84 (2012) (discussing the “emergent self”).

159. *Cf.* Parents, Families, and Friends of Lesbians and Gays, Inc. v. Camdenton R-III Sch. Dist., 853 F. Supp. 2d 888, 892 (W.D. Mo. 2012) (enjoining

A second major virtue of widespread access to search is informational equality. First, there is equality among users: egalitarian access to knowledge requires something like search.¹⁶⁰ 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].¹⁶¹ Then, there is equality between listeners and speakers. The capacity to listen is distributed far more evenly than the capacity to speak.¹⁶² 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.¹⁶³ 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

school district from using Internet filter that “systematically allows access to websites expressing a negative viewpoint toward LGBT individuals by categorizing them as ‘religion,’ but filters out positive viewpoints toward LGBT issues by categorizing them as ‘sexuality’”); *see also* Benkler, *supra* note 151, at 42–45 (“Children who grow up with knowledge of a wide variety of options for living, and with the capacity to value different options, will have a greater role in selecting the option they will pursue as adults than children who know no other option.”).

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

161. 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* Nat’l Lib. of Med., *Pseudoephedrine*, LACTMED: DRUGS AND LACTATION DATABASE, <http://toxnet.nlm.nih.gov/cgi-bin/sis/search/f?/.temp/~HQ6IW0:1> (last updated Sept. 17, 2013).

162. *See* Eugene Volokh, *Cheap Speech and What It Will Do*, 104 YALE L.J. 1805, 1834–41 (1995) (discussing comparative empowerment of listeners in digital environment).

163. *Welcome to Under the Hood*, *supra* note 145.

than individuals: it facilitates the development of minority and micro-minority viewpoints like [dont drone me bro], [baha'i homeschooling], and [pinealoma support group], because it helps people with shared interests find each other.

Finally, putting good search in users' hands advances the efficiency values already embedded in the numerous bodies of law that lay claim to regulate the search process.¹⁶⁴ Frequently these bodies' own normative frameworks start from the perspective of consumers at large—that is, from the perspective of search users.¹⁶⁵ So, for example, copyright law is designed to “advance public welfare through the talents of authors”¹⁶⁶ by offering a “reward to the author or artist [that] serves to induce release to the public of the products of his creative genius.”¹⁶⁷ 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 consumer search costs—that is, to make users maximally effective at finding the goods and services they seek.¹⁶⁸ Antitrust law focuses on consumer welfare.¹⁶⁹ 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 further examples below. Search engines 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, user empowerment 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.

164. See Grimmelmann, *supra* note 1, at 15–51 (detailing thirteen such bodies of law).

165. *Id.* at 7, 16.

166. *Mazer v. Stein*, 347 U.S. 201, 219 (1954).

167. *United States v. Paramount Pictures*, 334 U.S. 131, 158 (1948).

168. William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J. L. & ECON. 265, 281 (1987).

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

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.¹⁷⁰ 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. On the one hand, as discussed in Section 1, it tries to ensure that people have *access* to advisors. And on the other, as discussed in Section 2, 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;¹⁷¹ Thai law prohibits insulting the king.¹⁷² Google frequently removes links to these and many other kinds of content when ordered to do so by local authorities.¹⁷³ 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 worthy of respect. When the Chinese search engine Baidu blocks searches for information on Falun Gong at the Chinese government’s behest,¹⁷⁴ it interferes not

170. Charles Ferguson, *What’s Next for Google*, TECH. REV., Jan., 2005, at 40, available at <http://www.technologyreview.com/featuredstory/403532/whats-next-for-google/page/2/> (quoting Sergey Brin, co-founder of Google).

171. STRAFGESETZBUCH [STGB] [PENAL CODE], Nov. 13, 1998, BUNDESGESETZBLATT, Teil I [BGBL. I], as amended, § 130(3) (Ger.).

172. See *Thailand Sentences Editor to 10 Years in Jail for Royal Insult*, ASIANCORRESPONDENT.COM (Jan. 23, 2013, 12:53 PM), <http://www.asiancorrespondent.com/96003/thailand-sentences-editor-to-10-years-in-jail-for-royal-insult/>.

173. See generally *Transparency Report*, GOOGLE, <http://www.google.com/transparencyreport/removals/government/?hl=en> (last visited Nov. 27, 2013) (summarizing requests from government agencies and courts, and providing specific examples of Google’s response to such requests).

174. See, e.g., Ed Felten, *Chinese Internet Censorship: See It for Yourself*, FREEDOM TO TINKER (Apr. 28, 2009), <https://freedom-to-tinker.com/blog/felten/>

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;¹⁷⁵ 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 provide them if the market falls short.¹⁷⁶ Law has at 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.

chinese-internet-censorship-see-it-yourself/.

175. See *infra* note 323.

176. 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.¹⁷⁷

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.¹⁷⁸ It is precisely because the search engine knows more than I do about websites that it 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.¹⁷⁹

Thus, the government can help searchers by taking action against search engines that deceive or 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.

177. 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.

178. Cf. 16 C.F.R. § 255.5 (2013) (requiring disclosure of any “connection between the endorser and the seller of the advertised product which might materially affect the weight or credibility of the endorsement”).

179. Cf. Mark R. Patterson, *Non-Network Barriers to Network Neutrality*, 78 *FORDHAM L. REV.* 2843, 2860 (2010) (discussing the user’s inability to know when or whether search engines are returning biased results).

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.¹⁸⁰ The case for applying fiduciary concepts 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 other¹⁸¹ and we are undergoing something of an academic fiduciary renaissance, with scholars arguing for treating legislators,¹⁸² judges,¹⁸³ jurors,¹⁸⁴ and even friends¹⁸⁵ as fiduciaries. The common themes of fiduciary relationships are dependence, trust, and vulnerability.¹⁸⁶ 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.¹⁸⁷ Search engines resemble lawyers¹⁸⁸ and investment advisors, both of whom give advice to their clients and are regarded as fiduciaries when they do.¹⁸⁹

A useful source for fleshing out the relevant fiduciary duties is agency law.¹⁹⁰ Search engines are probably not agents as

180. Paul B. Miller, *A Theory of Fiduciary Liability*, 56 MCGILL L.J. 235, 262 (2011).

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

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

183. Ethan J. Leib et al., *A Fiduciary Theory of Judging*, 101 CALIF. L. REV. 699 (2013).

184. Ethan J. Leib et al., *Fiduciary Principles and the Jury*, 55 WM. & MARY L. REV. (forthcoming 2014).

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

186. *See, e.g.*, Tamar Frankel, *Fiduciary Law*, 71 CALIF. L. REV. 795, 800 & n.17, 810 (1983).

187. *See* VAIDHYANATHAN, *supra* note 176, at 59.

188. *See* MODEL RULES OF PROF'L CONDUCT R. 1.1 (2012) (duty of competence); R. 1.3 (duty of diligence); R. 1.4 (duty of communication and informed consent); R. 1.6 (duty of confidentiality).

189. *See* 15 U.S.C. § 80b-6 (2012) (regarding prohibited transactions by investment advisers).

190. *Cf.* Mark R. Patterson, *On the Impossibility of Information Intermediaries 1–2* (Fordham Univ. Sch. of Law, Law & Econ. Research Paper No. 13), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=276968 (describing information intermediaries as agents that facilitate relationships be-

such: an agent undertakes to “act on the principal’s behalf and subject to the principal’s control”¹⁹¹ 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. 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.¹⁹² Thus, we might say that a search engine must not let its own conflicts of interest shape the results it gives a user;¹⁹³ must not deliberately underplay its hand in returning results it knows not to be relevant;¹⁹⁴ must not misuse the sensitive search queries she supplies it with;¹⁹⁵ and must not conceal important facts about how it generates search results.¹⁹⁶ All of these duties can be waived with the user’s consent, but that consent must be both informed and obtained in good faith.¹⁹⁷

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 search results, is

tween providers and seekers of information).

191. RESTATEMENT (THIRD) OF AGENCY § 1.01 (2006).

192. *See id.* § 8.01 (discussing “duty to act loyally for the principal’s benefit in all matters connected with the agency relationship”).

193. *See id.* § 8.02 (discussing “duty not to acquire material benefit from a third party in connection with transactions conducted or other actions taken on behalf of the principal”); *id.* § 8.03 (discussing duty not to act adversely to the principal).

194. *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.”).

195. *See id.* § 8.05(2) (discussing duty “not to use or communicate confidential information of the principal for the agent’s own purposes or those of a third party”).

196. *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 . . .”).

197. *See id.* § 8.06 (“Conduct by an agent . . . does not constitute a breach of duty if the principal consents to the conduct, provided that in obtaining the principal’s consent, the agent acts in good faith, discloses all material facts . . . and otherwise deals fairly with the principal . . .”).

hardly full and complete transparency, but is certainly a significant start.¹⁹⁸

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 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.¹⁹⁹ 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.²⁰⁰

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.²⁰¹ No law is prohibited because it violates access or is mandatory because it ensures 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.²⁰² But what if they are more like one of the oth-

198. See, e.g., Amit Singhal, *An Update to Our Search Algorithms*, GOOGLE INSIDE SEARCH (Aug. 10, 2012, 10:30 AM), <http://www.insidesearch.blogspot.com/2012/08/an-update-to-our-search-algorithms.html>.

199. 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, *supra* note 1, at 55–56.

200. Cf. Chi-Chu Tschang, *The Squeeze at China's Baidu*, BLOOMBERG BUSINESSWEEK, Dec. 30, 2008, <http://www.businessweek.com/stories/2008-12-30/the-squeeze-at-chinas-baidu.htm> (alleging that Chinese search engine Baidu directly retaliates against sites that refuse to buy sponsored links by demoting them in its organic rankings).

201. See generally ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 139–58 (2011) (developing theory of midlevel principles for intellectual property law).

202. See generally NEW AMERICAN HAGGADAH (Jonathan Safran Foer & Nathan Englander eds. 2012).

er 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.

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 bystanders.²⁰³ 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 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.²⁰⁴ But society, the search for truth, and self-government all depend on dialogue

203. See Grimmelmann, *supra* note 1, at 33–44 (describing these as “third parties’ interests” in search).

204. See ELI PARISER, *THE FILTER BUBBLE: WHAT THE INTERNET IS HIDING FROM YOU* (2011); CASS R. SUNSTEIN, *REPUBLIC.COM 2.0* (2007).

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 [americian 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 toward enlightenment, the bubble theory sees users as trapped in a cycle of self-reinforcing ignorance.

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 arguments that the bubble theory is a particularly poor fit for search engines. First, it stands in stark contradiction to one of the other most common complaints about Google: that its ranking algorithms are too *majoritarian*, rather than too individualized. It can't both be the case that search users are all looking at the same ten websites and that they're all living in their own individual information bubbles. Second, there is a deep and abiding human taste for novelty, for serendipity, for the unfamiliar. Search engines are particularly useful in helping people explore new interests quickly and easily.²⁰⁵ 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.²⁰⁶ This is a particular tragedy on the advisor theory, since the very point of

205. Cf. A. Lev-On, *The Democratizing Effects of Search Engine Use: On 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”). Eric Goldman argues that “Coasean filters [his term for good matching systems] would not extinguish serendipitous exposures to unrequested content because they would proactively generate content catering to consumers’ latent interests.” Eric Goldman, *A Coasean Analysis of Marketing*, 2006 *WIS. L. REV.* 1151, 1219. He is right that the human taste for serendipity is one that search engines and other matching systems do and should cater to, but it is not really plausible to describe these tastes as “latent.” Pleasure and knowledge are not just the surfacing of buried memories. Cf. Plato, *Meno*, in *FIVE DIALOGUES* 58 (G.M.A. Grube trans., John M. Cooper 2d ed. 2002).

206. *A CLOCKWORK ORANGE* (Warner Bros. 1971).

search is that it can do so much more to enhance individual autonomy and personal development. And fourth, if the fear is that a personalized search engine will wrongly extrapolate 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*.²⁰⁷

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”)²⁰⁸ as authoritative because it was on Google; or for [42 inch visio tv] and assumes the first result must have the cheapest price because 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,²⁰⁹ but also that they have woefully poor understandings of how search engines work. The combination is dangerous, because it causes overreliance on 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?”²¹⁰ 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.²¹¹ 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 loy-

207. 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. Put another way, the best remedy for bad search is more search.

208. Ethan A. Huff, *Secret Government Documents Reveal Vaccines to Be a Total Hoax*, NATURALNEWS.COM (Jan. 8, 2013), http://www.naturalnews.com/038598_vaccines_medical_hoax_government_documents.html.

209. See Pan et al., *supra* note 126.

210. Caroline Daniel & Maija Palmer, *Google’s Goal: to Organise Your Daily Life*, FIN. TIMES (London) (May 22, 2007, 9:08 PM), <http://www.ft.com/intl/cms/s/2/c3e49548-088e-11dc-b11e-000b5df10621.html#axzz2ggj5tsvs>.

211. 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*, WHIMSLEY (Mar. 7, 2008), <http://whimsley.typepad.com/whimsley/2008/03/mr-googles-guid.html>.

alty. 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.²¹²

A final concern is the growing importance of distributed, interactive, algorithmic processes in the sociotechnical co-construction 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 alone the theoretical frameworks to explicate them.²¹³ 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 optimal 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.

212. See Thomas E. Weber, *Cracking the Facebook Code*, THE DAILY BEAST (Oct. 18, 2010, 2:57 AM), <http://www.thedailybeast.com/articles/2010/10/18/the-facebook-news-feed-how-it-works-the-10-biggest-secrets.html>. 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*, 54 COMM. ACM 121, 126 (2011). They may be technically similar, but they are not normatively equivalent: one of them (search) is better than the others.

213. 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 Jan. 2014).

IV. SEARCH BIAS RECONSIDERED

We are now in a position to apply the advisor theory to specific legal problems. Search bias, the most controversial of the many controversial claims against Google, is a good place to start.

An early search bias lawsuit, *Search King v. Google*, is still the leading example of the genre.²¹⁴ 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.²¹⁵ 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.”²¹⁶

Search King also shows what tends to happen to search-bias claims in court: they lose. Search King claimed that PageRanks were “objectively verifiable” and that Google changed them “purposefully and maliciously,” rendering its conduct “wrongful” and harming Search King.²¹⁷ But Google responded, and the court agreed, that 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.”²¹⁸ As a consequence, Google’s search results were “constitutionally protected opinions,” rendering them “immune from tort liability.”²¹⁹ 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.

214. No. CIV-02-1457-M, 2003 WL 21464568 (W.D. Okla. May 27, 2003). For other notable search bias cases, see *supra* note 16. 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.

215. *Search King*, 2003 WL 21464568, at *1.

216. *Id.* at *2.

217. *Id.* at *2–3.

218. *Id.* at *3–4.

219. *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.²²⁰ 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. But it does *not* follow that search results ought to be categorically protected by the First Amendment. Precisely because they are valuable instrumentally rather than expressively, search results should not be protected where they deceive the users they are meant to inform.

This Part works through the proper First Amendment analysis of a *Search King*-style tortious interference claim.²²¹ Section A unpacks search rankings to show that they consist of the search engine's opinions about relevance to the user. Section B argues that the crucial doctrinal question in such a claim is whether a ranking is demonstrably false and made with knowledge of its falsity. Section C puts these two points together. It argues that it is not possible to prove a ranking false by proving it objectively *wrong*, but it *is* possible to prove a ranking false by proving it subjectively *dishonest*. Or, more concisely, Section A presents the facts, Section B the law, and Section C the application of law to fact.

220. See Stuart Minor Benjamin, *Algorithms and Speech*, 161 U. PA. L. REV. 1445 (2013). Another commentator, Andrew Tutt, argues, "Software, in other words, should be considered not for what it *is* or even what it *says* but for what it means to society to treat it like speech. Whether operating systems, search engines, and word processors are 'speech' depends on the position these categories occupy within our democracy." Andrew Tutt, Essay, *Software Speech*, 65 STAN. L. REV. ONLINE 73, 77 (2012). On the level of principles, he is obviously right. But the only way to understand "the position these categories occupy within our democracy" is to examine them closely, asking what messages software systems communicate to whom and how the listeners understand those messages and act on them. This factually focused analysis achieves Tutt's goal of getting beyond unhelpful categories like "word processor" and "video game," *id.* at 76, by bringing out the cultural and social practices associated with specific pieces of software in specific contexts.

221. This Part considers only tort claims, not potential search neutrality regulations. With the end of the FTC's search-bias investigation, no such regulations appear likely in any jurisdiction where the First Amendment applies. Any extended discussion of them would be painfully hypothetical, filled with assumptions and subjunctives. That said, there is a strong argument that the First Amendment would allow user-protective legislation and FTC enforcement actions that go beyond the limits applicable to tortious-interference claims. A few key points of this argument are set out in the margin *infra* notes 300 and 304.

The rest of the Part cleans up some loose threads. 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

If there is one thing everyone can agree on in the search bias debate, it is that the *sine qua non* of search results is relevance. Compare Google critic Adam Raff's demand that search results should be "based solely on relevance"²²² with Google engineer Amit Singhal's insistence that Google's "algorithms rank results based only on what the most relevant answers are for users."²²³

Neither the conduit theory nor the advisor theory can provide a usable definition of relevance, because neither websites nor search engines are proper judges of relevance. For every website that gains in the rankings there is another that falls; there is no way to break the tie between DingoMart and DingoBarn's competing claims. But if "relevance" is a quality created by a search engine then it is devoid of meaning; the top result for [dingo] is the most relevant, regardless of whether it has anything to do with dingos.²²⁴ The conduit theory is indeterminate; the editor theory is tautological.

The advisor theory does better at capturing relevance; it asks us to take users' point of view. Through a user's eyes, a relevant result is one that helps her achieve her personal informational goals; 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 satisfy-

222. Raff, *supra* note 2.

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

224. 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).

ing the needs of these idiosyncratic humans, one information need at a time.²²⁵

Search engines face two linked problems in trying to satisfy users' standards of relevance: the diversity of users with different intentions, and the difficulty of inferring intention from a bare search query. "[E]ven if two people use the exact same words to ask a question, they may be asking very different things."²²⁶ 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 the February 2012 blog post from the *Paris Review Daily* reviewing a modern edition of Martha Washington's family recipe collection—a post entitled "The Founding Farmers"?²²⁷ For some users, this post is more relevant than the restaurant's homepage. Other users may be looking for critical reviews of the restaurant or for amusing stories about its knowledgeable but inattentive servers.²²⁸

Search engines respond to the ambiguities of relevance in three stages: they *measure* users' satisfaction with search re-

225. CHRISTOPHER D. MANNING ET AL., INTRODUCTION TO INFORMATION RETRIEVAL 151 (2008); *see also* KEN HILLIS ET AL., GOOGLE AND THE CULTURE OF SEARCH 53–76 (2013) (discussing Google's understanding of "relevance"); Van Couvering, *supra* note 116 ("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"))).

226. @CopyrightLibn [Nancy Sims], TWITTER (July 11, 2013, 11:57 AM), <https://twitter.com/copyrightlibn/status/355400591998058497>.

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

228. For examples of the ambiguities inherent in trying to satisfy users' diverse standards of relevance, it is hard to beat the guidelines Google gives to its human reviewers. *See Search Quality Rating Guidelines 1.0*, GOOGLE (Nov. 2, 2012), http://static.googleusercontent.com/external_content/untrusted_dlcp/www.google.com/en/us/intl/en_us/insidesearch/howsearchworks/assets/searchqualityevaluatorguidelines.pdf. "Many queries have more than one meaning," and raters are asked to classify them as "dominant," "common," or "minor." *Id.* § 2.3, at 8. For example, "The query [mercury], English (US) might refer to the car brand, the planet, or the chemical element (Hg). While none of these is clearly dominant, all are *common interpretations*. Many or some people might want results related to these interpretations." *Id.* The query [Nikon digital camera] seems clearer at first glance, but the guidelines note that "Some users may have decided to buy a Nikon ('do'), but some may be researching the Nikon brand ('know'), and some may want to go to digital camera pages on the Nikon website ('go')." *Id.* § 2.4.4, at 11. Search engineers, trademark lawyers, and lexicographers all know that words and phrases are capable of sustaining multiple unrelated meanings, depending on the context in which they appear.

sults,²²⁹ they *predict* how users will react to other results using general theories of relevance,²³⁰ and they *implement* those theories in the algorithms that respond to users' queries.²³¹ Each stage introduces its own approximations. At the measurement stage, no focus group or A/B test is ever comprehensive 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 prediction 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,²³² hardware purchases,²³³ and user waiting times.²³⁴ Different search engines use different metrics, theories, and implementations, and hence they deliver different search results.

Thus, search results are neither entirely "objective" nor entirely "subjective." The confusion that has surrounded the question for a decade is a result of conflating users' and search engines' views of relevance. From a user's perspective, relevance is a subjective goal. But from a search engine's perspective, search rankings are approximations of objectively but imperfectly observable characteristics of subjective user preferences, embodied in the search engine's choices about its algorithms. It is these choices—disagreements about the most effective way to

229. See, e.g., *id.* at 6. Even this 43-page document is a "guttled" version of a 161-page set of guidelines in use internally. See Matt McGee, *Google Guttled Its Search Quality Rating Guidelines for Public Release*, SEARCH ENGINE LAND (Mar. 1, 2013, 4:08 PM), <http://searchengineland.com/google-guttled-its-search-quality-rating-guidelines-for-public-release-150281>.

230. PageRank is the most obvious example: the theory behind using links to rank pages is that users will tend to find more highly linked pages to be more relevant. See Levy, *supra* note 23, at 98–99. The same is true for any other signal a search engine uses: the signal is a theory about relevance. *Id.*

231. See *id.*

232. See Xiaobo Fan et al., *Power Provisioning for a Warehouse-Sized Computer*, 34TH ACM CONF. ON COMPUTER ARCHITECTURE 13 (2007).

233. See Luiz André Barroso et al., *Web Search for a Planet: The Google Cluster Architecture*, IEEE COMPUTER SOC'Y 22, 25 (2003).

234. See Jake Brutlag, *Speed Matters for Google Web Search*, GOOGLE (June 22, 2009), http://services.google.com/fh/files/blogs/google_delayexp.pdf ("Experiments demonstrate that increasing web search latency reduces the daily number of searches per use by 0.2% to 0.6%.").

measure and implement relevance—that constitute the “opinions” in search.²³⁵

There are, in other words, two different kinds of opinions at work in search. Let us call them “normative” and “descriptive,” respectively.²³⁶ Users have normative opinions about relevance: expressions of the holder’s personal tastes and values. But search engines have descriptive opinions about relevance: claims about facts in the world under conditions of uncertainty. Dale Peck’s assertion that Rick Moody is “the worst writer of his generation” is a normative opinion,²³⁷ a forecaster’s prediction that it will be 84° and sunny in Los Angeles tomorrow is a descriptive opinion.²³⁸ Normative opinions are wholly subjective; descriptive opinions are subjective in that they express the speaker’s personal belief about something not universally agreed-on, but objective in that this something exists independently of the speaker.²³⁹

235. As this point should make clear, opinions about the best way to assess relevance are not “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. The resulting search *rankings* may be speech, but that is because they communicate claims about relevance, not because they communicate an idea about the best way to assess relevance.

236. 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 category 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. See also Wendy Gerwick Couture, *Opinions Actionable as Securities Fraud*, 73 LA. L. REV. 382, 408–14 (2013) (extending Keeton’s distinction to securities law). A third kind of “opinion” shows up in the case reports: “loose, figurative” language not meant to be understood as making truth-valued claims at all. *Old Dominion Branch No. 496, Nat’l Ass’n of Letter Carriers v. Austin*, 418 U.S. 264, 284 (1974); Diane Leenheer Zimmerman, *Curbing the High Price of Loose Talk*, 18 U.C. DAVIS L. REV. 359, 398–99 (1985) (identifying this third category of “opinion”).

237. Dale Peck, *The Moody Blues*, NEW REPUBLIC, July 1, 2002, available at <http://www.newrepublic.com/article/books-and-arts/the-moody-blues> (reviewing RICK MOODY, *THE BLACK VEIL: A MEMOIR WITH DIGRESSIONS* (2002)).

238. See generally L.A. STORY (TriStar Pictures 1991).

239. 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 (1991) (describing what I call descriptive opinions as “speculation”); Robert C. Post, *The Constitutional Concept of Public Discourse: Outrageous Opinion, Democratic Deliberation, and Hustler Magazine v. Falwell*, 103 HARV. L. REV. 601, 657 (1990) (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”). The underlying

In his Senate testimony in September 2011, Eric Schmidt seemed to further confuse the objective/subjective debate when he called Google's rankings its "scientific opinion."²⁴⁰ But this is actually a helpful way of thinking about search results, perhaps more so than Schmidt realized. Google studies the world, draws conclusions, and shares them with the public, just as scientists do.²⁴¹ 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."²⁴² 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.²⁴³ Search results seek to answer the imperfectly answerable question of what users want.²⁴⁴

B. THE FIRST AMENDMENT REQUIRES FALSITY AND FAULT

Now that we have a handle on what search rankings are—descriptive opinions—it is time to consider what First Amendment standard applies to them. This Section argues that for a

assumption here, about the existence of "facts" in the world, passes over some significant epistemological difficulties. For a more sophisticated treatment of the issue, see Post, *supra*, at 656–61. For present purposes, nothing essential depends on this precision.

240. Schmidt Testimony, *supra* note 16, at 234; *cf.*, Dana Remus Irwin, *Freedom of Thought: The First Amendment and the Scientific Method*, 2005 WIS. L. REV. 1479, 1481–92 (discussing scholarship on the application of the First Amendment to scientific inquiry).

241. See Schmidt Testimony, *supra* note 16, at 234 ("constantly experimenting").

242. FED. R. EVID. 702.

243. See *ONY, Inc. v. Cornerstone Therapeutics, Inc.*, 720 F.3d 490, 496 (2d Cir. 2013) ("Most conclusions contained in a scientific journal article are, in principle, capable of verification or refutation by means of objective proof. Indeed, it is the very premise of the scientific enterprise that it engages with empirically verifiable facts about the universe. At the same time, however, it is the essence of the scientific method that the conclusions of empirical research are tentative and subject to revision, because they represent inferences about the nature of reality based on the results of experimentation and observation." (internal quotation marks omitted)).

244. See *Our Products and Services*, GOOGLE, <http://www.google.com/about/company/products/> ("Larry Page, our co-founder and CEO, once described the 'perfect search engine' as something that 'understands exactly what you mean and gives you back exactly what you want.'").

statement of this sort to be actionable in a tortious interference suit, it must be provably *false* and the speaker must have acted with a sufficient degree of *fault*. (For present purposes, we can assume that the fault standard is actual malice.) Subsection 1 locates this standard in the Supreme Court's opinion in *Milkovich v. Lorain Journal Co.*; Subsection 2 responds to conduit- and editor-theory objections that some other standard ought to apply.

1. *Milkovich*

The First Amendment standard applied in *Search King*, the leading search bias case against Google, comes from the Supreme Court's opinion in *Milkovich v. Lorain Journal Co.*,²⁴⁵ a defamation case against a newspaper for a column saying that "Anyone who attended the [wrestling] meet . . . knows in his heart that [the plaintiffs] lied at the hearing after each having given his solemn oath to tell the truth."²⁴⁶ The newspaper argued that the statement was protected as an "opinion," but the Supreme Court disagreed. There was no "wholesale defamation exemption for anything that might be labeled 'opinion,'" and no need to divide statements into categories of "opinion" or "fact."²⁴⁷

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."²⁴⁸ Thus, regardless of how they are labeled, statements that knowingly "imply a false assertion of fact" can be actionable.²⁴⁹

245. *Milkovich v. Lorain Journal Co.*, 497 U.S. 1 (1990).

246. *Id.* at 5.

247. *Id.* at 18.

248. *Id.* at 20–21.

249. 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, 320–21 (2000). Sometimes, they distinguish "fact" from "opinion" by saying that the former are capable of being proven false and the latter are not. Since falsifiability was the basis of the Court's holding in *Milkovich*, no real harm is done. See *Milkovich*, 497 U.S. at 21. But when courts draw on the vague contextual factors the Court rejected, the result is a

Milkovich thus directs us to ask two questions: does the challenged speech make a false assertion of fact, and if so, is it uttered with a sufficient degree of fault? The precise degree of fault required may vary,²⁵⁰ but in thinking about search bias, we can avoid these doctrinal difficulties by assuming that the actual-malice standard applies.²⁵¹ Search King, like other search-bias plaintiffs, alleged that Google acted with the intent to cause harm and with knowledge that its manipulated rankings were false.²⁵²

2. Some Objections

On this view, showings of falsity and fault are both necessary and sufficient to hold a search engine liable in tort for misranking a website. This position has been challenged from both sides. Conduit theorists have said that falsity and fault are not necessary; editor theorists have said that falsity and fault are not sufficient. Both are wrong; *Milkovich* provides the correct standard.²⁵³

On the conduit side, Oren Bracha and Frank Pasquale point to “the uncovered speech in an aircraft navigational

hopeless muddle. See, e.g., *Gilbrook v. City of Westminster*, 177 F.3d 839, 861 (9th Cir. 1999); Sack, *supra*, at 324–25 (criticizing *Gilbrook* and similar opinions).

250. The Court has been less concerned, for example, about protecting statements about private individuals or on matters of private concern. See *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 347 (1974) (“[S]o 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.); *Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc.*, 472 U.S. 749, 760–61 (1985) (allowing an award of presumed and punitive damages for a false statement on a matter of private concern even without actual malice). The holding of *Greenmoss* 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*).

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

252. See *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 WL 21464568, at *2–3 (W.D. Okla. May 27, 2003).

253. This claim requires one qualification, albeit one that is tangential to the concerns at stake in the search-bias debate. After *United States v. Alvarez*, 132 S.Ct. 2537 (2012), it is likely that a prohibition on false speech must also target a “subset of lies where specific harm is more likely to occur.” *Id.* at 2555 (Breyer, J., concurring). For present purposes, this is unlikely to be an issue. Search bias suits like *Search King* sound in the well-established intentional interference tort, which sufficiently limits suits to an appropriate “subset” of cases in which the plaintiff can allege genuine economic injuries.

chart”²⁵⁴ 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.²⁵⁵ 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.²⁵⁶ The Second Circuit affirmed a jury verdict that the chart was a defective product.²⁵⁷ *Saloomey* and other aircraft-chart cases generally do not even discuss the First Amendment; Bracha and Pasquale would say that it is similarly inapplicable to search rankings.²⁵⁸

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. If the chart had truthfully described the facilities available at the Martinsburg airport, the First Amendment would have barred the suit. Jeppesen has a First Amendment right to sell accurate charts, but not to sell inaccurate ones.²⁵⁹ In other words, the factual speech at issue in *Saloomey* and the other products liability cases is not *uncovered* speech, which is “measured against no First Amendment standard whatsoever” and for which “[t]he First Amendment just does not show up.”²⁶⁰ Rather, it is *unprotected* speech, which faces “the full arsenal of First Amendment rules, principles, standards, distinctions, presumptions, tools, factors, and three-part tests” and is found wanting.²⁶¹

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.²⁶² There,

254. Bracha & Pasquale, *supra* note 56, at 1194 & n.237.

255. *Saloomey v. Jeppesen & Co.*, 707 F.2d 671, 672 (2d Cir. 1983).

256. *Id.* at 672–73.

257. *Id.* at 672.

258. 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, calling the chart a “false or misleading commercial message[.]” *Brocklesby v. United States*, 753 F.2d 794, 803 (9th Cir. 1985), *withdrawn and amended*, 767 F.2d 1288 (9th Cir. 1985).

259. See, e.g., *Sorrell v. IMS Health, Inc.*, 131 S. Ct. 2653, 2670–71 (2011) (striking down law prohibiting sale of truthful information).

260. Frederick Schauer, *The Boundaries of the First Amendment: A Preliminary Exploration of Constitutional Salience*, 117 HARV. L. REV. 1765, 1769 (2004).

261. *Id.*

262. See Volokh & Falk, *supra* note 13, at 890.

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.”²⁶³ 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.”²⁶⁴ For Volokh and Falk, Google is a publisher just like Putnam: its speech is both covered and protected.²⁶⁵

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.”²⁶⁶ *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.²⁶⁷ 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 prudential reasons, it makes sense to hold Jeppesen to a higher standard of care than Putnam given the nature of their respective publications.²⁶⁸ But in both cases, the crucial threshold of

263. *Winter v. G.P. Putnam’s Sons*, 938 F.2d 1033 (9th Cir. 1991).

264. *Id.* at 1037.

265. See Volokh & Falk, *supra* note 13, at 892.

266. *Winter*, 938 F.2d at 1037 n.9.

267. The same principle applies to other lawsuits by readers who were injured after following bad advice in publications. See, e.g., *Cardozo v. True*, 342 So. 2d 1053, 1054 (Fla. Dist. Ct. App. 1977) (cookbook with recipe including taro roots, which are toxic when eaten raw); *Smith v. Linn*, 563 A.2d 123, 124 (Pa. Super Ct. 1989) (book recommending “liquid protein diet”); *Herceg v. Hustler Magazine, Inc.*, 565 F. Supp. 802, 803 (S.D. Tex. 1983) (magazine story describing autoerotic asphyxiation). 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., Inc.*, 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, 1128–32 (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, 1077–78 (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).

268. This distinction depends on the nature of their speech, not on the institutional status of Putnam or Jeppesen as the “press.” We are long past the

falsity has already been crossed—the only remaining argument is over what degree of fault the First Amendment requires. The same is true for search bias: false rankings made with actual malice may be actionable.²⁶⁹

C. SEARCH RANKINGS ARE FALSE WHEN THEY ARE DISHONEST

Now we are in position to apply law to fact. The problem of falsity, it should be apparent, is a problem of baselines. To say that a ranking is “false,” we need some baseline of truth. The conduit, editor, and advisor theories diverge in the baselines

era in which it made sense—if it ever did—to think of the institutional media as having a distinct and more protected First Amendment role. The Internet makes it possible for anyone to publish, cheaply and quickly. This Article, therefore, does not consider arguments that search engines are or are not “press” or “news media” or “publishers.” Instead, it looks to generally applicable First Amendment doctrine.

269. Another case cited by Volokh and Falk is *Blatty v. New York Times Co.*, 728 P.2d 1177 (Cal. 1986), in which the California Supreme Court held that an author could not sue the *New York Times* for allegedly leaving his book off its best-seller list. The court held that the list was not “of and concerning” the plaintiff because it did not “refer to Blatty or his novel” expressly or by implication. *Id.* at 1185. Doctrinally, this is bizarre: “of and concerning” is not an element of tortious interference. See RESTATEMENT (SECOND) OF TORTS § 766B (1979) (giving action for intentional improper interference); *id.* § 767 (listing factors to determine whether interference is improper). The court imported the of-and-concerning element from the defamation tort, believing that *Rosenblatt v. Baer*, 383 U.S. 75 (1966), had constitutionalized the element. *Blatty*, 728 P.2d at 1182. But this misreads *Rosenblatt*, which was a defamation case. *Rosenblatt*, 383 U.S. at 77. Improper interference is its own well-established tort, with its own doctrinal structure and its own safeguards. Whether they are constitutionally sufficient must be assessed on their own merits, rather than by converting improper interference into defamation by another name.

Falsity and actual malice have been broadly constitutionalized, see, e.g., *Hustler Magazine, Inc. v. Falwell*, 485 U.S. 46, 56 (1988) (intentional infliction of emotional distress); *Bose Corp. v. Consumers Union, Inc.*, 466 U.S. 485, 488 (1984) (product disparagement), but not of-and-concerning, as the partial dissent in *Blatty* noted. See *Blatty*, 728 P.2d at 1187–88 (Grodin, J., concurring and dissenting). The majority asserted that of-and-concerning applies “to all claims whose gravamen is the alleged injurious falsehood of a statement.” *Id.* at 1182. But this too is wrong. Consider another cause of action premised on injurious falsehood: false advertising. Section 43(a) of the Lanham Act makes liable “[a]ny person who . . . in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of *his* or her or another person’s goods, services, or commercial activities.” 15 U.S.C. § 1125(a)(1) (2012) (emphasis added). Thus, a competitor may sue for false statements about the plaintiff’s own products, even when the competitor is nowhere mentioned. See, e.g., *TrafficSchool.com, Inc. v. Edriver Inc.*, 653 F.3d 820, 826–28 (9th Cir. 2011) (competing driving school had Lanham Act standing to sue for the false suggestion that plaintiff’s website at *dmv.org* was affiliated with state agencies).

they choose. The conduit theory assumes that there is an objective baseline of relevance: it treats relevance as an objectively observable property of a website. The editor theory, by contrast, denies the possibility of any baseline at all: it treats relevance as a wholly subjective expression on the search engine's part. The advisor theory, which recognizes that search rankings have both objective and subjective properties, charts a middle course. When a search engine is subjectively dishonest with its users—when it returns results other than the ones it believes users will find the most relevant—the search engine's own secret, undisclosed belief about relevance serves as the baseline against which the falsity of the rankings it actually returns can be measured. This Section takes up the three theories in turn.

1. The Conduit Theory: Objective Falsity

Start, once again, with the conduit theory. Google's critics regularly assert that rankings are falsifiable because relevance is objective. Foundem, a price comparison website, claims, "[f]or the query 'compare prices shoei xr-1000', Foundem is one of only two or three truly relevant pages,"²⁷⁰ and "[i]t clearly makes no sense to exclude price comparison sites from these results [for searches like [best price canon eos 500d]]."²⁷¹ 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."²⁷² 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."²⁷³

All of these arguments only make sense if relevance has an external reality, but it does not. The critics are probably right that the intentions behind some queries are reasonably unam-

270. *Foundem's Google Story*, *supra* note 129.

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

272. Kurt Wimmer, *The Proper Standard for Constitutional Protection of Internet Search Practices 6* (unpublished white paper), *available at* <http://goo.gl/GkLOY>.

273. Katz, *supra* note 77. Nextag is a product search engine that competes with Google's own product search service.

biguous.²⁷⁴ 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 searches for [canon eos 500d compare prices]—or whether Google Shopping should—is not a question with a unique answer. The diversity of users' preferences for most queries will tend to make the choice to rank one website over another nonfalsifiable.

2. The Editor Theory: No Falsity

Now for the editor theory. The *Search King* court wrote 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.”²⁷⁵ Replace “relative significance of a particular web site” with “the number of jellybeans it would take to fill Soldier Field” and the fallacy is apparent. Search King could come to court with better math, and Google’s “representation” would be demonstrably false. *Search King* conflated users’ normative opinions about websites with search engines’ descriptive opinions about which websites users will find relevant.

The difference matters because the two kinds of opinions are protected speech 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,”²⁷⁶ while Dale Peck says that he is “the worst writer of

274. See JORIS VAN HOBOKEN, SEARCH ENGINE FREEDOM: ON THE IMPLICATIONS OF THE RIGHT TO FREEDOM OF EXPRESSION FOR THE LEGAL GOVERNANCE OF WEB SEARCH ENGINES 43–47 (P. Bernt Hugenholtz ed., 2012) (suggesting that the possibility of “right” answers varies between navigational, transactional, and informational queries); *Search Quality Rating Guidelines 1.0*, *supra* note 228, § 2.4, at 9 (same).

275. *Search King v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 WL 21464568, at *3 (W.D. Okla. May 27, 2003).

276. Elizabeth Hand, *Searching for Lost Time*, WASH. POST, July 1, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/06/28/AR2007062802184.html> (reviewing RICK MOODY, *RIGHT LIVELIHOODS: THREE NOVELLAS* (2007)).

his generation.”²⁷⁷ Allowing them both to have their say respects personal autonomy while promoting social pluralism.²⁷⁸

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: they are capable of being disproven by the right evidence, at least in principle.²⁷⁹ That is, it is not the case that search rankings are absolutely protected speech because they express normative opinions. Instead, they enjoy only the weaker, more contingent protections afforded to descriptive opinions. A search engine does not itself have a normative opinion about which webpages are best; rankings do not express a search engine’s own values.²⁸⁰ Google is not a book critic; when it links to Dale Peck’s hatchet job of a review, Google has no particular view about the truth of the matter asserted. It asserts only that users will find Peck’s review relevant. In practice, it will generally be impossible for a court to conclude that Google’s assertions of relevance are wrong.²⁸¹ But that is because of the diversity of users’ (normative) opinions and the difficulty of measuring them, rather than because of the expressivity of Google’s (descriptive) opinions.²⁸²

277. Peck, *supra* note 237.

278. See Post, *supra* note 239, 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.”).

279. See *Jefferson Cty. Sch. Dist. No. R-1 v. Moody’s Investor’s Servs.*, 175 F.3d 848, 853 (10th Cir. 1999) (endorsing, and garbling, the distinction); Kathryn Dix Sowle, *A Matter of Opinion: Milkovich Four Years Later*, 3 WM. & MARY BILL RTS. J. 467, 577–79 (1994) (endorsing this distinction).

280. 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> (last visited Oct. 12, 2013). 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.

281. See *supra* Part IV.C.1.

282. There is a helpful analogy to false advertising law. Any individual shopper’s preference for brand A over brand B is unverifiable. But a survey showing that four out of five shoppers preferred brand A to brand B is verifiable.

3. The Advisor Theory: Subjective Falsity

The advisor theory leads us in a slightly different direction. Since we are concerned about loyalty, we should worry most about cases in which the search engine deliberately falls short of the best it is capable of for users. That is, we are looking for search rankings that depart from the search engine's own assessment of relevance. *Milkovich* explains the crucial doctrinal distinction in tort:

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 the first level may serve to establish malice where that is required for recovery.²⁸³

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. A classic English fraud case, *Edgington v. Fitzmaurice*, put the point quite nicely:

There must be a misstatement of an existing fact, but the state of a man's mind is as much a fact as the state of his digestion. It is true that it is very difficult to prove what the state of a man's mind at a particular time is, but if it can be ascertained it is as much a fact as anything else. A misrepresentation as to the state of a man's mind is, therefore, a misstatement of fact.²⁸⁴

One might ask why subjective falsity should ever matter. In many cases, it does not—it is not material to listeners. Whether a normative opinion is subjectively true or false is irrelevant as a matter of law. Even though "I hate broccoli" might be a lie, to let that lie form the basis of liability would undo the right to dislike broccoli. Subjective falsity is also irrel-

ble. Only the latter will serve as sufficient basis to establish a comparative claim; only the latter is subject to judicial second-guessing. The preferences themselves are still subjective, but it is possible to make objective statements that the consumers, in aggregate, *have* those preferences. *See, e.g.*, *Johnson & Johnson Vision Care, Inc. v. 1-800 Contacts, Inc.*, 299 F.3d 1242 (11th Cir. 2002) (considering objective survey evidence about subjective consumer preferences). The problem in search is that "Crest.com is relevant" is a far vaguer statement than "consumers prefer Crest."

283. *Milkovich v. Lorain Journal Co.*, 497 U.S. 1, 20 n.7 (1990); *see also* *Virginia Bankshares, Inc. v. Sandberg*, 501 U.S. 1083, 1092 (1991) ("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.").

284. *Edgington v. Fitzmaurice*, (1885) 29 Ch.D. 459 at 483 (Eng.).

evant where a descriptive opinion is objectively true. For example, it does not typically suffice to make a statement actionable under the securities laws.²⁸⁵ Subjective falsity standing alone is immaterial to investors who care about the objective reality the statement describes.²⁸⁶

There is, however, an important category of descriptive opinions for which subjective falsity is highly important, because it can be bootstrapped into a form of objective falsity. Where a speaker holds herself out as having special expertise in the subject matter, she represents that her descriptive opinions are the product of superior skill and judgment.²⁸⁷ Where her relationship to listeners is sufficiently close to invite reliance, the result is not unlike an estoppel. Her own secret undisclosed beliefs provide a baseline against which the truth of her statements can be measured.

There is a particularly 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.²⁸⁸ 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.²⁸⁹ But this fact has not deterred courts from allow-

285. See *Virginia Bankshares*, 501 U.S. at 1096; *Couture*, *supra* note 236 (endorsing this rule).

286. See *Couture*, *supra* note 236 (criticizing courts' "unsound materiality analyses" in falsity cases).

287. See, e.g., *Bily v. Arthur Young & Co.*, 834 P.2d 745, 768 (Cal. 1992) ("Moreover, when a party possesses or holds itself out as possessing superior knowledge or special information or expertise regarding the subject matter and a plaintiff is so situated that it may reasonably rely on such supposed knowledge, information, or expertise, the defendant's representation may be treated as one of material fact.").

288. The missing link between *Search King* and *Milkovich* is actually a credit rating case, *Jefferson Cnty. Sch. Dist. No. R-1 v. Moody's Investor's Servs., Inc.*, 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., Apr. 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).

289. See, e.g., *Compuware Corp. v. Moody's Investors Servs., Inc.*, 499 F.3d 520, 529 (6th Cir. 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 communi-

ing some suits against credit rating agencies.²⁹⁰ The key is bad faith.²⁹¹ An actionable rating is not merely a bad prediction in light of how things turned out or in light of the evidence available, but one affirmatively given in knowing or reckless violation of the rater's own standards.²⁹² These ratings are "false" because the rating agency has promised that they honestly represent its estimate of creditworthiness—but they do not.²⁹³ 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.²⁹⁴

Credit ratings 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. Thus, in credit-ratings cases, subjective honesty is all. Normatively, if a credit rating is subjectively false, it is worthless, and the arguments that it is worth protecting or plays a valuable role in the financial markets vanish. And doctrinally, subjective

cates any provably false factual connotation.”).

290. 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 (S.D.N.Y. 2009).

291. See, e.g., *King Cnty. 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)).

292. Compare *Anschutz*, 785 F. Supp. 2d 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.3d 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”).

293. 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 . . .”).

294. *Abu Dhabi Com. Bank v. Morgan Stanley & Co.*, 888 F. Supp. 2d 431, 455 (S.D.N.Y. 2012).

falsity marks the dividing line that suffices to make a bad-faith rating actionable.²⁹⁵

And so back to search results. Google holds out to the world that its rankings attempt to maximize relevance.²⁹⁶ Indeed, the head of Google's search ranking team wrote, "[o]ur algorithms rank results based only on what the most relevant answers are for users."²⁹⁷ In pursuing this broad goal, Google, like the ratings agencies, is free to establish its own criteria for measuring and describing quality.²⁹⁸ It is not free, however, to assert that it has attempted to maximize quality when it has

295. See Letter from Laurence H. Tribe & Thomas C. Goldstein to Sec. and Exch. Comm'n 4 (Dec. 14, 2009), available at <http://www.sec.gov/comments/s7-24-09/s72409-13.pdf> ("But [nationally recognized statistical rating organizations (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 publication (*including the fact that the NRSRO believes a certain rating opinion*) if it is made with actual malice" (emphasis added) (internal quotation marks omitted)); cf. Letter from Eugene Volokh to the Subcomm. on Capital Mkts., Ins., and Gov't Sponsored Enter. of the House Comm. on Fin. Servs. (May 15, 2009), available at <http://financialservices.house.gov/media/file/hearings/111/volokh.pdf> (calling credit ratings "pure opinion"). For further academic analyses applying the First Amendment to credit ratings, see, for example, 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 Husisian, *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. ACCT. & FIN., July 2011, at 14.

296. See Schmidt Testimony, *supra* note 16, at 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.").

297. Singhal, *supra* note 223.

298. In particular, it will usually be free to make either choice when it has to choose between results that will satisfy some users and results that will satisfy others. Even though Google knows that some users prefer Nextag and others prefer Foundem, distinguishing them and giving them each what they want will be difficult or impossible. Subjective dishonesty arises only when the search engine, *by its own lights*, concludes that it really "ought" to return Nextag and returns Foundem instead.

not actually done so.²⁹⁹ 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.³⁰⁰

What is more, the bad faith in misrepresenting the process by which search 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 a “speaker [who] really did not think Jones had lied but said it anyway.”³⁰¹ But as the Court noted, this dishonesty “may serve to establish malice.”³⁰² 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 Google deliberately changes its rankings to make them less relevant, the results are not just false, but knowingly false. If Google changes its rankings with deliberate indifference to relevance and the results are in fact less relevant by its usual standards, they are not just false, but recklessly false. Either way, subjective bad faith in reporting rankings constitutes actual malice. This is an important convergence. The combination of subjectivity and objectivity in a search ranking mean

299. 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.

300. If this sounds like a difficult exercise, consider that it may still be an easier hill to scale than objective falsity. 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) (discussing the difficulty in making judgments about the objective falsity of advertisements). It may also be difficult for private plaintiffs to frame a complaint that complies with Rule 11 and alleges sufficient facts to provide a plausible inference of subjective dishonesty: the relevant facts about a search engine’s relevance assessments and algorithms will typically be closely guarded secrets within the search engine’s possession. FTC oversight, including FTC subpoena power, may be necessary if one is committed to stamping out subjective falsity. See James Grimmelman, *Devils and Details*, THE LABORATORIUM (Jan. 4, 2013, 1:21 AM), http://laboratorium.net/archive/2013/01/04/devils_and_details. Some readers may not consider the game to be worth the candle.

301. *Milkovich v. Lorain Journal Co.*, 497 U.S. 1, 20 n.7 (1990).

302. *Id.*

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 that speakers ordinarily have bases for their statements, so a statement of “opinion” with no stated basis may sometimes be treated as implicitly asserting the existence of some underlying facts sufficient to warrant the opinion.³⁰³ 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.

* * *

To recap, the conduit theory goes wrong because it treats relevance as a fact about websites and ignores users’ normative opinions of websites. The editor theory goes wrong because it conflates users’ normative opinions about websites with search engines’ descriptive opinions about which websites users will find relevant. In contrast, the advisor theory of relevance—a descriptive opinion *about* users’ normative opinions of website—yields a straightforward test based on loyalty to the user.

A search ranking is actionable in tort when it is subjectively dishonest.³⁰⁴ A ranking is meaningfully false when it is given

303. See, e.g., *TMJ Implants, Inc. v. Aetna, Inc.*, 498 F.3d 1175, 1183–87 (10th Cir. 2007) (discussing the Restatement test in detail and concluding, “[i]n sum, we find little difference between § 566 and the *Milkovich* standard”); RESTATEMENT (SECOND) OF TORTS § 566 (1977).

304. The following is a sketch of how the analysis of regulations designed to protect search users’ interests as active listeners may be slightly different. It is offered tentatively, as a starting point for discussion.

In *Search King*-style suits, the basis for liability is deception. But just as consumer-protection and false advertising law can go beyond deceptive state-

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. *Falsity and fault 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 trivial when it bothers to worry about falsity at all.

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.³⁰⁵

Tim Wu argues in yet another *New York Times* op-ed about Google that “computerized decisions” should not be considered speech.³⁰⁶ 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.”³⁰⁷ 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.

ments to misleading ones, even where the statements are purportedly explained away in the fine print, so too search regulation could reasonably prohibit practices that reduce relevance, even where they are purportedly disclosed in the fine print. As with commercial speech, search rankings are covered speech because of their value to listeners, and regulations to protect those listeners are consistent with the level of protection they enjoy. If this is right, then the government could make a prima facie case for a regulation by showing that the practice it prevents is not directed to improving relevance for users, shifting an evidentiary burden to search engines to show that it has (possibly longer-term) sufficient relevance-improving effects.

Thus, relevance could potentially provide a baseline against which manipulation, and not just deception, could be defined. But this would require care—more care than most of Google's critics have taken—and the doctrinal details would be subtle. Given the closure of the FTC's investigation, it is a subject for another day.

305. See generally Benjamin, *supra* note 220 (arguing that many “algorithm-based outputs” are speech for First Amendment purposes).

306. Tim Wu, Op-Ed., *Free Speech for Computers?*, N.Y. TIMES, June 20, 2012, at A29.

307. *Id.*

(Where a human does make a specific choice about specific content, the question is different.)³⁰⁸

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 automated processes.³⁰⁹ 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.³¹⁰ There is no mean-

308. *Id.*

309. 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, 11:15 AM), <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, 11:59 PM), <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 220; see also Bruce Boyden, *Speech by Proxy*, MADISONIAN (June 25, 2012), <http://madisonian.net/2012/06/25/speech-by-proxy>. Even Tim Wu has since endorsed a narrower and more careful theory of algorithmic speech. See Tim Wu, *Machine Speech*, 161 U. PA. L. REV. 1495, 1530–31 (2013) (recognizing that "Google is just trying to find what the user wants" and endorsing a First Amendment test that "[t]he law in question must somehow burden a search engine's users"). This is not quite complete—it leaves out the way in which Google communicates valuable opinions about relevance to users—but it recognizes the crucial role played by search users.

310. See, e.g., Grimmelmann, *supra* note 1, at 59–60 (describing "strong

ingful dividing line between algorithmic and manual search results. Every search result is produced algorithmically; 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.³¹¹ In February 2011, the same reporter caught a much bigger fish: J.C. Penney.³¹² 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 “provide an extremely poor user experience.”³¹³ 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.³¹⁴ 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

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 official statement 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*. . . .

intuitive appeal” of manual manipulation argument).

311. David Segal, *A Bully Finds a Pulpit on the Web*, N.Y. TIMES, Nov. 28, 2010, at BU1.

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

313. 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>.

314. Segal, *supra* note 312.

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.³¹⁵

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.").

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.³¹⁶ 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.³¹⁷

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 price-comparison 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.

315. Statement of the Fed. Trade Comm'n, *supra* note 5, at 2 (emphasis added).

316. 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 Case Against Google*, 34 HARV. J.L. & PUB. POL'Y 171 (2011) (three cheers for Google), with Geoffrey A. Manne & Joshua D. Wright, *Innovation and the Limits of Antitrust*, 6 J. COMPETITION L. & ECON. 153 (2010) (three jeers for intent evidence).

317. Statement of the Fed. Trade Comm'n, *supra* note 5, at 3.

If there is a fly in the ointment, it is that while the FTC pledged to “remain vigilant and continue to monitor Google”³¹⁸ 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.”³¹⁹ 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 the ones that credit rating agencies are required to have in place.³²⁰ 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—the key prescriptions of the advisor theory—bring fresh insights to well-worn disputes.

318. *Id.* at 4.

319. Bracha & Pasquale, *supra* note 56, at 1202.

320. See 15 U.S.C. § 78o-7(c)(3) (2012) (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”); 17 C.F.R. § 240.17g-2 (2013) (imposing record-keeping requirements on registered NRSROs); *id.* § 240.17g-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); see also Carroll, *supra* note 288, at 116–18 (endorsing Dodd-Frank-ization of Google).

A. COPYRIGHT

Google dreams big, and none of its dreams are bigger than its plan to scan every book ever published.³²¹ Not the driverless cars.³²² Not the virtual-reality glasses.³²³ Not even the prize to land a robot on the moon.³²⁴ No, Google Books—a program regularly compared to a modern Library of Alexandria—best captures the company’s ambition and arrogance.³²⁵ 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 books.³²⁶ The program has drawn four separate lawsuits by authors and publishers for copyright infringement.³²⁷ 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

321. See Jeffrey Toobin, *Google’s Moon Shot*, NEW YORKER, Feb. 5, 2007, at 30.

322. See John Markoff, *Google Cars Drive Themselves*, in *Traffic*, N.Y. TIMES, Oct. 10, 2010, at A1.

323. See Nick Bilton, *A Rose-Colored View May Come Standard*, N.Y. TIMES, Apr. 5, 2012, at B3.

324. See John Schwartz, *\$25 Million in Prizes Is Offered for Trip to Moon*, N.Y. TIMES, Sept. 14, 2007, at A14.

325. See Sergey Brin, Op-Ed., *A Library to Last Forever*, N.Y. TIMES, Oct. 9, 2009, at A31.

326. See Jennifer Howard, *Google Begins to Scale Back Its Scanning of Books from University Libraries*, CHRON. HIGHER ED., Mar. 9, 2012, <http://chronicle.com/article/Google-Begins-to-Scale-Back/131109/>.

327. See *Authors Guild v. HathiTrust*, 902 F. Supp. 2d 445 (S.D.N.Y. 2012); *Authors Guild v. Google, Inc.*, 282 F.R.D. 384 (S.D.N.Y. 2012); *Authors Guild v. Google, Inc.*, 770 F. Supp. 2d 666 (S.D.N.Y. 2011); *Complaint, McGraw-Hill Cos. et al. v. Google*, No. 05-cv-08881, 2005 WL 2778878 (S.D.N.Y. Oct. 19, 2005).

latter view, Google Books is a wholly new product, one distinct from the books it scans.³²⁸

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.³²⁹

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 meaningfully “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 indexed.³³⁰ 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 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.³³¹ A

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

329. See Matthew Sag, *Orphan Works as Grist for the Data Mill*, 27 BERK. TECH. L.J. 1503 (2012).

330. 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”).

331. See Lauren Gelman, *Privacy, Free Speech, and “Blurry-Edged” Social Networks*, 50 B.C. L. REV. 1315 (2009); Woodrow Hartzog & Fred Stutzman,

privacy exception, however, makes less sense for books than it does for webpages. Google offers authors and publishers an opt-out from book scanning,³³² just as it offers websites an opt-out from its main search engine.³³³ It's not clear that Google needs to offer opt-outs for books, or that it should.

Two recent decisions show how fair use can be calibrated to accommodate indexing. In *Authors Guild, Inc. 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.³³⁴ But in *Associated Press v. Meltwater Holdings, Inc.*, 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.³³⁵ 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.³³⁶ 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.³³⁷ But the *Meltwater* court held that Meltwater was not a search engine, because it was a "subscription service" rather than a "publicly available tool"³³⁸ and because its searches were "run against a defined list of content providers" rather than the Internet as a whole.³³⁹ Both distinctions are singularly unpersuasive: the court's distinctions

The Case for Online Obscurity, 101 CALIF. L. REV. 1, 35–37 (2013).

332. See *Information for Publishers and Authors About the Library Project*, GOOGLE BOOKS, http://books.google.com/googlebooks/publisher_library.html (last visited Nov. 27, 2013).

333. See *Field v. Google, Inc.*, 412 F. Supp. 2d 1106, 1112–13 (D. Nev. 2006) (stating that since Google cannot contact all website owners, they can "automatically communicate their preferences" by putting "instructions in 'metatags'").

334. *Authors Guild, Inc. v. HathiTrust*, 104 U.S.P.Q.2d (BNA) 1659, 1669 (S.D.N.Y. 2012).

335. *Associated Press v. Meltwater U.S. Holdings, Inc.*, 931 F. Supp. 2d 537 (S.D.N.Y. 2013).

336. See *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1164–65 (9th Cir. 2007) (image thumbnails transformative); *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818 (9th Cir. 2003) (image thumbnails transformative); *Field*, 412 F. Supp. 2d, at 1118–19 (search engine cache transformative).

337. *HathiTrust*, 104 U.S.P.Q.2d, at 1675.

338. *Meltwater*, 931 F. Supp. 2d at 554.

339. *Id.* at 555.

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 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.³⁴⁰ 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.³⁴¹

On November 14, 2013, as this Article was going through the final stages of editing for publication, the Southern District of New York held that it was also a fair use for Google to use its own scans to offer the Google Books search engine and to show "snippets" of one eighth of a page around each search result to users.³⁴² The court's conclusion was consistent with the argument above: "snippets help users locate books and determine whether they may be of interest. . . . Google Books does not supersede or supplant books because it is not a tool to be used to read books."³⁴³ The court concluded that Google Books "advances the progress of the arts and sciences, while maintaining respectful consideration for the rights of authors and other creative individuals, and without adversely impacting the rights of copyright holders. . . . Indeed, all society benefits."³⁴⁴

340. *Id.* at 547. 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 545–47. 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.

341. *See id.* at 552.

342. *See* Authors Guild v. Google, Inc., No. 05 Civ. 8136 (DC) (S.D.N.Y. Nov. 14, 2013).

343. *Id.* at *20–21.

344. *Id.* at *26.

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.³⁴⁵ Search *privacy* is therefore a subject of significant concern for consumer advocates; some search engines even compete by emphasizing that they retain less information on users.³⁴⁶

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.³⁴⁷ There is no way to engineer a search engine that does not observe user interests. And from a user's perspec-

345. See, e.g., 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, 112–14 (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]. *Id.* 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 generally Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701 (2010) (explaining the ease of re-identifying supposedly anonymous individuals).

346. DuckDuckGo, for example, has a charming explanation of its policies against user tracking. DUCKDUCKGO, <http://donttrack.us/> (last visited Nov. 27, 2013).

347. Cf. Nathan Newman, *The Cost of Lost Privacy: Search, Antitrust and the Economics of the Control of User Data* (May 14, 2013) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2265026 (arguing that the exploitation of personal information is so central to Google's business practices that it amounts to an antitrust violation).

tive, 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,³⁴⁸ which goes to the heart of users' ability to lead autonomous self-directed lives by forming their own private opinions about the world.³⁴⁹ The freedom to think for oneself requires the freedom to read unobserved,³⁵⁰ 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.³⁵¹ 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.³⁵² 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 use it against the interests of their principals—search users—without informed consent.

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.³⁵³ 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

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

349. 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) (arguing that search engine surveillance of users "threaten[s] the values the perfect search engines were designed to sustain").

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

351. See RESTATEMENT (THIRD) OF AGENCY § 8.05(2) (2005).

352. *Id.* § 8.06(1); see also Eugene Volokh, *Freedom of Speech and Information Privacy: The Troubling Implications of a Right to Stop People from Speaking About You*, 52 STAN. L. REV. 1049, 1058 (2000) (explaining that the government may impose confidentiality obligations on advisors who do not "explicitly disclaim any such implicit promise").

353. Google had \$43 billion in advertising revenue for its 2012 fiscal year. *Investor Relations*, GOOGLE, <http://investor.google.com/financial/tables.html> (last visited Nov. 27, 2013).

concerns; the fear is that advertisers reject the user's reality and substitute their own.³⁵⁴ 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.³⁵⁵ A better world would feature what Eric Goldman calls "Coasean filters": tools that let users and marketers bargain over who receives which messages.³⁵⁶ 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.³⁵⁷ The shooting remains unsolved, and a website named Melbourne Crime posted Trkulja's picture along with an article about the case from the *Herald Sun Newspaper*.³⁵⁸ That webpage also had photographs of other notorious criminals and alleged criminals³⁵⁹—implying, Trkulja claimed, that he was a member of Melbourne's criminal underworld.³⁶⁰

354. See 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."); Tal Zarsky, "Mine Your Own Business!": Making the Case for the Implications of the Data Mining of Personal Information in the Forum of Public Opinion, 5 YALE J.L. & TECH. 1 (2003).

355. The British videogame chain GameStation takes the cake here: it added a term to its former 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." 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/> (discussing the immortal soul term).

356. Goldman, *supra* note 205, at 1213–18.

357. *Trkulja v Google Inc.*, [2012] VSC 533 ¶ 4 (Austl.).

358. *Trkulja v Yahoo! Inc.*, [2012] VSC 88 ¶¶ 2–4 (Austl.).

359. *Id.* ¶ 3.

360. *Id.* ¶ 5.

Trkulja sued Yahoo! for returning the Melbourne Crime page as a search result for [michael trkulja].³⁶¹ 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.³⁶²

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.³⁶³ 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 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!³⁶⁴ and his AU\$ 200,000 judgment against Google.³⁶⁵

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

361. *Id.* ¶ 7.

362. *Trkulja v Google Inc.*, [2012] VSC 533 ¶ 2 (Austl).

363. 47 U.S.C. § 230(c)(1) (2006). For cases applying Section 230 to immunize search engines, see *Getachew v. Google, Inc.*, 491 F. App'x 923 (10th Cir. 2012); *Neeley v. NameMedia Inc.*, No. 09-5151, 2011 BL 24617, 97 U.S.P.Q.2d 2029 (W.D. Ark. Jan. 31, 2011); *Maughan v. Google Tech., Inc.*, 143 Cal. App. 4th 1242 (2006); *Mmubango v. Google, Inc.*, No. 12-1300, 2013 WL 664231 (E.D. Pa. Feb. 22, 2013); *Parker v. Google, Inc.*, 422 F. Supp. 2d 492 (E.D. Pa. 2006); *Stayart v. Google, Inc.*, 783 F. Supp. 2d 1055, 1056–57 (E.D. Wis. 2011); *see also Metropolitan Int'l Schools Ltd. v. Designtecnica Corp.*, [2011] 1 WLR 1743, [2009] EWHC 1765 (Q.B.) (finding Google not liable for allegedly defamatory statements in excerpt from website).

364. *Trkulja v Yahoo! Inc.*, [2012] VSC 88 ¶ 60 (Austl).

365. *Trkulja v Google Inc.*, [2012] VSC 533 ¶ 55 (Austl).

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 content relevant, nothing more. Like a newspaper reporting on the controversy over public officials' defamatory statements,³⁶⁶ a search engine performs a valuable service by telling its users about the existence of a debate in the first place.³⁶⁷

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.³⁶⁸ 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.³⁶⁹ If Trkulja has sued Melbourne Crime

366. See Ashley Messenger, *The Problem with New York Times, Co. v. Sullivan: An Argument for Moving from a "Falsity Model" of Libel Law to a "Speech Act Model,"* 11 FIRST AMEND. L. REV. 172, 177 (2012).

367. See *Nieman v. Versuslaw, Inc.*, No. 3:12-cv-3104, 2012 BL 196699, 40 Med. L. Rptr. 2191 (C.D. Ill. Aug. 03, 2012) (holding that the First Amendment bars claims against search engines for linking to court documents).

368. See Felix Wu, *Collateral Censorship and the Limits of Intermediary Immunity*, 87 NOTRE DAME L. REV. 293 (2011) (discussing § 230 and the collateral censorship problem); Grimmelmann, *supra* note 63 (arguing that the problem will be especially severe for search engines).

369. For an overview of proposals to modify section 230, see JOEL

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.³⁷⁰ And some search engines 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 immunity makes sense. It is acting like a publisher, rather than an advisor, and the law should treat it as one.³⁷¹

Censorship is one thing; secret censorship quite another.³⁷² 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.³⁷³

REIDENBERG ET AL., FORDHAM CTR. ON LAW & INFO. POLICY, SECTION 230 OF THE COMMUNICATIONS DECENTRY ACT: A SURVEY OF THE LEGAL LITERATURE AND REFORM PROPOSALS (2012).

370. In copyright, section 512 of the Digital Millennium Copyright Act limits search engines' immunity in just this way. See 17 U.S.C. § 512(d)(3) (2012). 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, 1004–05 (9th Cir. 2004) (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.

371. Section 512(d) is a better model here. See 17 U.S.C. § 512(d)(1)(A) (2012) (denying safe harbor when information location tool has "actual knowledge that the material or activity is infringing").

372. Cf. Derek E. Bambauer, *Cybersieves*, 59 DUKE L.J. 377, 393 (2009) (arguing that Internet filtering is more legitimate when countries are transparent about what material is blocked and why).

373. See Grimmelmann, *supra* note 97, at 947–50; see also Alan Eustace, *Better Search in Mainland China*, GOOGLE INSIDE SEARCH (May 31, 2012, 9:00 AM), <http://insidesearch.blogspot.com/2012/05/better-search-in-mainland>

And when Google receives copyright takedown notices under section 512(d) of the Digital Millennium Copyright Act (DMCA), it forwards them to the Chilling Effects clearinghouse to document the resulting removals.³⁷⁴ 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.³⁷⁵ This move is neither required by copyright law³⁷⁶ nor relevance-enhancing from users' perspective.³⁷⁷ If Google hides webpages it thinks users are looking for, it should be honest with them and say on the search results page that it has done so.

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.³⁷⁸

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.³⁷⁹ The trademark owners hate it when competi-

-china.html (describing new notices to warn Chinese users when a search term they are typing might cause their Internet connection to be interrupted).

374. See *FAQ*, GOOGLE TRANSPARENCY REPORT, <http://www.google.com/transparencyreport/removals/copyright/faq/> (last visited Nov. 27, 2013) (“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.”).

375. Singhal, *supra* note 198.

376. See *generally* UMG Recordings, Inc. v. Shelter Capital Partners, 718 F.3d 1006 (9th Cir. 2013).

377. Eric Goldman, *Why Did Google Flip-Flop on Cracking Down on “Rogue” Websites? Some Troubling Possibilities*, TECH. & MKTG. LAW BLOG (Aug. 22, 2012, 9:46 AM), http://blog.ericgoldman.org/archives/2012/08/why_did_google.htm.

378. See *Rosetta Stone Ltd. v. Google, Inc.*, 676 F.3d 144, 172–73 (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.*, 676 F.3d 144 (4th Cir. 2012) (No. 1:09-cv-00736).

379. The academic literature on keyword advertising and trademarks online is immense. Some helpful sources include Margreth Barrett, *Internet*

tors use their trademarks as keywords to trigger advertisements; they have regularly sued both the competitors and search engines, the former with somewhat more success.³⁸⁰ 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.³⁸¹

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.³⁸² 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; it is merely arranging information about websites in a convenient form, like a drugstore placing every brand of cola in the same section.³⁸³ 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 pric-

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. Lemley, *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).

380. See, e.g., *1-800 Contacts, Inc. v. Lens.Com, Inc.*, 722 F.3d 1229, 1237 (10th Cir. 2013).

381. For an example of an especially definitive win for Google, see *Google Inc. v. Austl. Competition & Consumer Comm'n*, [2013] HCA 1 (Austl.).

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

383. See Eric Goldman, *Brand Spillovers*, 22 HARV. J.L. & TECH. 381, 382-83 (2009).

es 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 user 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.³⁸⁴ 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, 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.³⁸⁵

The most recent and careful empirical study in the area

384. *Compare* Network Automation, Inc. v. Advanced Sys. Concepts, Inc., 638 F.3d 1137, 1154 (9th Cir. 2011) (paid placement labeled as such), *with* Playboy Enters., Inc. v. Netscape Commc'ns, 354 F.3d 1020, 1030 (9th Cir. 2004) (paid placement not labeled as such).

385. *Multi Time Machine, Inc. v. Amazon.com*, 926 F. Supp. 2d 1130, 1137 n.4 (C.D. Cal. 2013).

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.”³⁸⁶ 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.³⁸⁷

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, arguing that a search result is problematically “biased” when it constitutes bad-faith advice to the user. The Article has also 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. De-

386. David J. Franklyn & David A. Hyman, *Trademarks as Search Engine Keywords: Much Ado About Something?*, 26 HARV. J.L. & TECH. 418, 484 (2013).

387. The FTC currently advises search engines to engage in “clear and conspicuous disclosures” of the sponsorship of search ads. Letter from Heather Hipsley, Acting Assoc. Dir., FTC Div. of Adver. Practices, to Gary Ruskin, Exec. Dir. of Commercial Alert (June 27, 2002), available at <http://www.ftc.gov/os/closings/staff/commercialalertletter.shtml>; Sample Search Engine General Letter from Mary Engle, Assoc. Dir. for Adver. Practices, Fed. Trade Comm’n (June 24, 2013), <http://www.ftc.gov/os/2013/06/130625searchenginegeneralletter.pdf>. It is unclear whether simple labels on search results do an adequate job of informing users. See David J. Franklyn & David A. Hyman, *Review of the Likely Effects of Google’s Proposed Commitments Dated April 25, 2013*, FAIR SEARCH EUROPE (July 1, 2013), <http://www.fairsearcheurope.eu/wp-content/uploads/2013/07/FS-Survey-Results-on-Effects-of-Google-Proposed-Commitments.pdf> (finding little effect on consumer behavior from, and substantial consumer misunderstanding of, proposed labels of Google-affiliated content).

scriptively, the fact that listeners can and do make choices about which speech to receive helps explain numerous First Amendment doctrines.³⁸⁸ And normatively, empowering listeners to make effective choices among speakers is a worthy goal.³⁸⁹ A well-developed theory of active 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; failing 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.

388. See, e.g., *Sable Commc'ns of Cal., Inc., v. FCC*, 492 U.S. 115, 128 (1989) (“[T]he 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.”).

389. See, e.g., *Rowan v. U.S. Post Office Dep't*, 397 U.S. 728, 736 (1970) (“[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.”).

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.³⁹⁰

390. Cf. VAIDHYANATHAN, *supra* note 176, at 209–10 (“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.”).