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The Folklore of Informationalism: The Case of Search Engine Speech

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ARTICLES

THE FOLKLORE OF INFORMATIONALISM: THE CASE OF SEARCH ENGINE SPEECH

Oren Bracha*

Are search engine results protected speech under the First Amendment? This has become an essential question in the debate over search engine regulation. Search engine speech is at the cutting edge of several recent trends in First Amendment jurisprudence: the challenge of protection for machine-generated speech, a recent tendency toward constraining governmental economic regulatory power through aggressive and broad interpretation of freedom of speech, and the question of limitations on the coverage of the First Amendment. Arguments on behalf of First Amendment protection for search engine results focus on different protected speech interests. Free speech scrutiny is justified and necessary when it defends the speech interests of indexed content providers or users. But search engine speech proponents have gone further, arguing that search engines are protected either as editors or speakers themselves. These arguments are doctrinally uncertain and normatively baseless. Despite some possible support in recent U.S. Supreme Court decisions, the theory of First Amendment coverage on which these arguments rely is not firmly grounded in doctrine and its potentially far-reaching implications have not been considered. As a normative matter, the broad arguments for search engine speech stand on dubious foundations. A proper examination of the social practices of search engine speech reveals that none of the established normative theories of freedom of speech provide clear support for including such expression within the scope of the First Amendment. This normative conclusion can be accommodated and First Amendment protection to search engine speech can be denied by developing existing doctrinal tools.

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INTRODUCTION

Last night, Google spoke to me. I asked about the best French restaurants in my neighborhood, and it expressed its opinions on the subject. We spent half the night arguing. If you find the preceding lines strange then you have not been following the debate over search engine speech. The problem of search engine speech is at the forefront of the broader debate over machine speech.¹ Is the expressive content generated by computerized machines—the maps that appear on the screen of a GPS navigational aid, your social network's recommendations of new friends, or the list of synonyms proposed by my word processor—speech protected under the First Amendment? This question is, in turn, a subset of a larger set of vexing challenges created by the impending technological reality of pervasive semiautonomous automated agents.² We have electronic artificial agents who contract in our name, partially (soon to be fully) automated drones that kill for us, and computer platforms that speak to us. Can these semiautonomous agents be contained by the existing categories

1. See Tim Wu, *Free Speech for Computers?*, N.Y. TIMES, June 20, 2012, at A29.

2. See generally SAMIR CHOPRA & LAURENCE F. WHITE, A LEGAL THEORY FOR AUTONOMOUS ARTIFICIAL AGENTS (2011).

of the relevant laws, or should those categories and laws change in order to adequately accommodate them? Can we easily trace the lines linking the actions of these automated machines to the people who created and programmed them, thereby simply connecting the actions to the array of legal rights and duties of such human agents? Not since the last time a radically new social phenomenon in the form of “corporate persons” challenged existing legal categories was the law faced with such demanding conceptual and normative tasks.³ This Article tackles in detail one limited (but complex enough) facet of the challenge of automated agents, that of search engine speech.

The origins of the search engine speech debate are much more prosaic than the deep philosophical and conceptual questions alluded to above. General purpose internet search engines constitute big business.⁴ The economic, social, and cultural importance of these vital information gatekeepers, together with the dominance of one firm (Google), have provoked demands for scrutiny and legal restrictions on the activities of search engines.⁵ Complaints of search engine manipulation, bias, or abuse and proposals for remedying them take many forms, but all share a common element: a claim for restricting in some way the search engine’s absolute discretion over ranking and presenting search results to users.⁶ The First Amendment has emerged as a doomsday defensive weapon in this struggle. It proved to be such an effective weapon because it is one of the most formidable barriers for government regulation in contemporary constitutional law.⁷ From the perspective of those seeking to avoid regulation, if only search engine results could be plausibly presented as protectable speech, absolute discretion over them would be considerably shielded from any legal constraint. And this is exactly what has happened in the last decade. Arguments that search engine results are speech protected under the First Amendment were first tested, with great success, in the early court cases involving attempts to limit Google’s complete discretion over its search practices through a variety of common law and statutory doctrines.⁸ Since then, the argument has been perfected and it has

3. For a description of how corporate personhood challenged existing legal categories, see generally MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW 1870–1960: THE CRISIS OF LEGAL ORTHODOXY* 65–107 (1992), and Gregory A. Mark, *The Personification of the Business Corporation in American Law*, 54 U. CHI. L. REV. 1441 (1987).

4. See, e.g., JOHN BATTELLE, *THE SEARCH: HOW GOOGLE AND ITS RIVALS REWROTE THE RULES OF BUSINESS AND TRANSFORMED OUR CULTURE* 123 (2005) (describing how Google’s value rose from nothing to \$3 billion in five years); Jennifer Slegg, *Search Revenues Hit \$8.7 Billion in First Half of 2013*, SEARCH ENGINE WATCH (Oct. 15 2013), <http://searchenginewatch.com/article/2300829/Search-Revenues-Hit-8.7-Billion-in-First-Half-of-2013>.

5. See *infra* text accompanying notes 43–56.

6. See *infra* text accompanying notes 47–52.

7. See *infra* text accompanying note 166.

8. See *Langdon v. Google, Inc.*, 474 F. Supp. 2d 622, 630 (D. Del. 2007); *Kindlestart.com v. Google, Inc.*, No. C 06-2057 JF (RS), 2007 WL 831806, at *13 (N.D. Cal. Mar. 16, 2007); *Datner v. Yahoo*, No. BC 355217, slip op. at 2 (Cal. Super. Ct. Dec. 12,

emerged as Google's first line of defense on all of the fronts in which the search engine regulation battle is joined.⁹

This Article brackets the policy question of whether search engine regulations are desirable or feasible. It focuses instead on what started as a sideshow but is gradually turning into the main event: the question of search engine speech. The general proposition that search engines' ranking of their results is protected under the First Amendment represents several, very different, arguments whose applications lead to different results. The most plausible variant of the argument is that the First Amendment protects against the government's use of search engines as censorial tools.¹⁰ Search engines are vital intermediaries for internet information.¹¹ As such, governments could use them to restrict both expression of, and access to, disfavored viewpoints.¹² From this perspective, the protected speech interest is that of speakers and users rather than that of the search engine itself. The First Amendment has a vital role to play in protecting the speech rights of users against censorial regulations seeking to utilize the control power of search engines.

The focus on the speech interest of users, however, leaves much room for regulations of search ranking not aimed at suppressing users' speech. This is why most proponents of search engine speech have turned to different theories. These alternative theories present the search engine itself as the bearer of the protected speech rights. In one version of the argument, search engines are portrayed as editors of content, the equivalent of newspapers, who enjoy the shield extended by the First Amendment to the editorial discretion of such actors.¹³ In an even more ambitious variant, search engines are seen as the speakers whose protected speech consists of opinions on the relative relevance of websites displayed in search results.¹⁴ These theories, already adopted by several courts adjudicating cases of alleged manipulation of search engine results,¹⁵ provide a much stronger constitutional protection to the search engine's control over its results. But are they sound?

At first blush, it appears that straightforward application of First Amendment doctrine validates both the editor and direct-speaker theory of search engine speech. But there are strong doctrinal arguments to the contrary. At a minimum, a careful application of existing doctrine produces inconclusive results.

There is more at stake here, however, than hasty application of doctrine to the specific case of search engine ranking. If accepted, the broad

2006); *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 U.S. Dist. LEXIS 27193, at *12 (W.D. Okla. May 27, 2003).

9. See *infra* text accompanying notes 51–53.

10. See *infra* text accompanying notes 62–79.

11. See James Grimmelman, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1, 3 (2007).

12. See James Grimmelman, *Speech Engines*, 98 MINN. L. REV. 868, 901 (2014).

13. See *infra* text accompanying notes 80–90.

14. See *infra* text accompanying notes 110–17.

15. See cases cited *supra* note 8.

arguments for search engine speech rights and, especially, the version recasting search results as opinions protected under the First Amendment, involve potential implications that go well beyond the context of internet search. The search-engines-as-speakers argument relies on an extremely broad theory of First Amendment coverage. According to this theory any communication that satisfies a capacious technical definition of speech merits First Amendment protection—subject only to a narrow list of categories of excluded speech.¹⁶ If taken seriously, this weak threshold principle opens the floodgates to an enormous stream of First Amendment claims. This is doubly true in the age of information and machine speech when a multitude of economic and social activities may fit the formal definition of speech. Such a result could hamper governmental ability to regulate in vast areas.¹⁷ Under the basic structure of post–New Deal constitutional law, only a relatively small subset of regulation is subject to a high level of constitutional scrutiny of the kind required by the First Amendment.¹⁸ The search-engine-as-speakers argument, however, has the potential to upend that structure.¹⁹

One may respond that subjecting a large share of government’s regulatory power to an exacting standard of constitutional scrutiny is, though perhaps unfortunate, nonetheless an unavoidable outcome of the meeting between existing First Amendment doctrine and new technological realities. This response misses the fact that the coverage of the First Amendment has never been as broad as assumed by the search engine speech argument.²⁰ The difficulty with coverage limitations is the obscure nature of doctrine in this area and, especially, the absence of anything resembling a clear criterion. Courts have traditionally relied on tacit consensus and classificatory maneuvers to limit the coverage of the First Amendment without developing clear guidance on how to draw the line.²¹ The strong claims for search engine speech rights upset any tacit consensus in this area and force the question of coverage to the open.

Following Robert Post, I argue that the best way to answer the question of First Amendment coverage is through a normative analysis of the specific social practices in which a particular speech is embedded.²² Understood within its specific social context—namely, the relevant social practices of speakers and listeners—search engine speech is hard to justify on the basis of *any* of the traditional theories of freedom of speech.²³ To

16. See Stuart Benjamin, *Algorithms and Speech*, 161 U. PA. L. REV. 1458–61 (2013).

17. See *infra* text accompanying notes 155–63.

18. See *United States v. Carolene Prods. Co.*, 304 U.S. 144, 152 & n.4 (1938).

19. See *infra* text accompanying notes 164–69.

20. See Fredrick Schauer, *The Boundaries of the First Amendment: A Preliminary Exploration of Constitutional Salience*, 117 HARV. L. REV. 1765, 1768 (2004) (“[T]he speech with which the First Amendment deals is the exception and the speech that may routinely be regulated is the rule.”).

21. See *infra* text accompanying notes 152–54.

22. Robert Post, *Recuperating First Amendment Doctrine*, 47 STAN. L. REV. 1249 (1995).

23. See *infra* text accompanying notes 183–96.

date, nobody has offered a plausible account of how the social practices of search engine speech are relevant to any set of values possibly underlying the First Amendment.

Courts are unlikely, however, to apply direct normative analysis on a case-by-case basis. They may need more concrete guidelines for deciding coverage questions in cases involving machine speech and speech in a functional context more generally. As recently suggested by Professor Tim Wu, such guidance could be found in a functionality doctrine.²⁴ Under this doctrine, functional speech is not protected by the First Amendment. The rudimentary basis of such a doctrine already exists in the case law.²⁵ To meet the challenges of machine speech, however, the doctrine must be further developed and clarified. A well-defined functionality doctrine must require an examination of the social practices associated with speech allegedly restricted by a specific regulation. Under such a rule, the First Amendment will not cover any speech practice that is primarily preoccupied with functional activities or purposes and that is not more than trivially connected to the realization of any free speech values (for example, commanding a machine to execute computer code). This means that such a speech practice will trigger no First Amendment scrutiny, even if speech in the technical sense (i.e., the communication of a message potentially understandable by a recipient) is restricted and even if such restriction is based on the content of the speech.²⁶

When examined under the functionality doctrine elaborated here, search engine rankings are clearly functional. Their purpose is, overwhelmingly, to help or channel users trying to find specific content; there is no real dialogue between user and search engine.²⁷ Search engine speech, while communicative, is much like an interactive and complex series of conventional road signs whose content is limited to that necessary for the function of guiding travelers in particular directions. Speech of this type is exactly the kind to which First Amendment protection would be denied altogether under a well-defined functionality doctrine.

Courts must not blindly extend First Amendment protection to search engine speech while refusing to examine either the social practices within which this speech is embedded or the relevance of underlying values. Such blind insistence on First Amendment protection is the information age analog to what Thurman Arnold long ago called “the folklore of capitalism”: the uncritical transfer of concepts and beliefs taken from one socioeconomic context to a thoroughly different one.²⁸ Arnold attacked the “folklorist” assumption that an economy dominated by business corporations constituting tremendous concentration of power and wealth was the same as Adam Smith’s free market composed of individual actors, an assumption embodied in the legitimacy-conferring myth of the corporate

24. Tim Wu, *Machine Speech*, 161 U. PENN. L. REV. 1495, 1496–97 (2013).

25. See *infra* text accompanying notes 226–49.

26. See *infra* text accompanying notes 250–51.

27. See *infra* text accompanying notes 259–63.

28. THURMAN ARNOLD, *THE FOLKLORE OF CAPITALISM* (1937).

person.²⁹ The claim on behalf of search engine speech is part of a folklore of informationalism. It is based on the uncritical assumption that simply because communication generated by machines as part of functional processes meets a technical, broad definition of speech, it is the same as other social practices involving speech and thus it normatively merits the same constitutional protection. The result is the legitimacy-conferring myth of the speaking search engine. Perhaps unsurprisingly, another commonality of the folklore of capitalism and the folklore of informationalism is that both were wielded as a shield against government regulation of big business. To avoid the pitfalls of the folklore of informationalism, the phenomenon of search engine speech must be understood in its social context and then normatively evaluated.

Part I of this Article briefly explains the origins of the search engine speech debate and describes the types of regulations relevant for First Amendment claims in this area. It discusses each of the three concrete free speech arguments hidden in the general claim for First Amendment protection for search results: protection of the speech interests of users and content providers instrumentally affected by the operation of search engines, protection of the speech interest of search engines as editors of content provided by others, and protection of the speech interest of search engines as direct speakers. Part II focuses on the third, most ambitious variant of the argument, which treats the search engine as a direct speaker. Under this argument, search results are speech that embodies opinions of relevance protected under the First Amendment. Part II also discusses the inconclusive result of existing legal doctrine as applied to this claim, develops a normative framework for analyzing First Amendment coverage questions, and applies this framework to our case. Part II concludes that no plausible normative justification exists for extending First Amendment protection to the speech embodied in search results. Part III asks how courts can apply this conclusion. It discusses the possible development of an explicit functionality doctrine in First Amendment jurisprudence and explains how this doctrine should be applied to search results.

I. SEARCH ENGINE SPEECH

Evaluating the claims that search engine results constitute speech protected under the First Amendment requires a clear understanding of two elements often left ambiguous by such claims. First, we need a precise understanding of the regulation at issue—of what exactly is potentially regulated and how. Second, we need an accurate definition of the speech interest allegedly negatively affected by the regulation. After a brief introduction to the way search engines work, this Part takes up each of these two questions.

29. *See id.* at 185–206.

A. Search Engine Fundamentals

Search engines are a crucial part of the internet's infrastructure. Their basic function is to help users locate and access information relevant for the users' preferences or needs.³⁰ The exact details of search engines' services change dynamically, but their basic method of operation has remained largely stable. Search engines direct users to information through a three-step process.

First, search engines scour or "crawl" particular sources of information to ascertain the information in those sources, including metainformation about the relations between the sources.³¹ The core sources of information covered by search engines are webpages. In principle, however, search engines can cover any source of information that exists in a form amenable to digital searches. The information sources covered by search engines have been expanding in recent years with the proliferation of source-specific search services such as Google's books or patents search.³²

Second, search engines index the information sources they cover. In this stage, the information gathered from the sources is analyzed using a complex algorithm.³³ The algorithm is the "secret sauce" of the search engine. It is the most important element that gives search its value and differentiates one service from another.³⁴ The algorithm analyzes the information sources and their relationships according to a complex array of parameters.³⁵ The result of this process is a search index that contains information about the relevance and importance of covered sources in regard to particular search terms.³⁶

Third, search engines allow users to run specific searches. This is typically done through a textual search query submitted by the user, containing one or more search terms. The search engine analyzes the search query by reference to its index and produces a list of results.³⁷ The search engine typically presents these results as a list of text items ranked in descending order of relevance. In general web searches, each result item is hyperlinked to the actual webpage listed. Historically, search engine results were uniform in the sense that an identical search query would produce the same results, independent of the user's identity or other contextual information about the search.³⁸ The trend today is toward growing

30. Grimmelmann, *supra* note 11, at 6 ("[A] search engine is a service that helps its users locate content on the Internet.").

31. Grimmelmann, *supra* note 12, at 877.

32. Grimmelmann, *supra* note 11, at 6 ("[S]earch engines help users find more than just web pages.").

33. *Id.* at 9.

34. See DAVID A. VISE & MARK MALSEED, *THE GOOGLE STORY* 45–57 (2005); Frederic Filloux, *Google News: The Secret Sauce*, *GUARDIAN* (Feb. 25, 2013), <http://www.guardian.co.uk/technology/2013/feb/25/1>.

35. Steven Levy, *Inside The Box*, *WIRED*, Mar. 2010, at 96, available at http://www.wired.com/magazine/2010/02/ff_google_algorithm/.

36. *Id.*

37. Grimmelmann, *supra* note 12, at 877.

38. Zhongming Ma et al., *Interest-Based Personalized Search*, 25 *ACM TRANS. ON INFO. SYS.*, Feb. 2007, at 1, 2, available at <http://www.csupomona.edu/~zma/research/>

personalization of search results.³⁹ Personalized search results are tailored to the specific interests and characteristics of the user. This means that an identical search query may produce different results depending on various contextual factors. Personalizing search results is based on profiling or modeling the user on the basis of various kinds of information, such as personal information directly supplied by users and analysis of past search and web usage patterns.⁴⁰

Search engines are, thus, important information intermediaries.⁴¹ Their main value resides in their effective ability to connect between two groups: users who want to access information and information providers.⁴² Both the demand for search engine regulation and the exact meaning of opposing free speech arguments are based on search engines' status as information intermediaries. By locating relevant information, search engines perform an invaluable function that greatly enhances the value of the internet for both users and information providers.

The status of search engines as information intermediaries, however, also creates the risk of abuse. Controlling the bottlenecks of internet information flows bestows incredible power on search engines. This power creates, in turn, the risk of abuse,⁴³ especially given the natural tendency toward concentration of the search market and the inherent limitations of effective market discipline in this field.⁴⁴ The result has been a litany of complaints by critics against alleged abusive search engine practices

Interest-Based%20Personalized%20Search.pdf (describing one-size-fits-all searches in which an "identical query from different users or in different contexts will generate the same set of results displayed in the same way for all users").

39. See *id.*; James Pitkow et al., *Personalized Search*, 45 COMM. ACM, Sept. 2002, at 50, 50, available at <http://www.cond.org/p50-pitkow.pdf> (describing a shift in search from "consensus relevancy" toward "personal relevancy").

40. See Pitkow, *supra* note 39, at 51 (discussing techniques for personalizing search and dividing them into two groups: "contextualization and individualization" (emphasis added)).

41. NIVA ELKIN-KOREN & ELI M. SALZBERGER, LAW, ECONOMICS AND CYBERSPACE: THE EFFECTS OF CYBERSPACE ON THE ECONOMIC ANALYSIS OF LAW 71 (2004) ("Search engines are becoming the new virtual gatekeepers of Cyberspace.").

42. See Grimmelmann, *supra* note 11, at 7 (observing that a search engine can match users with appropriate content providers, to the benefit of both).

43. See James Grimmelmann, *Some Skepticism About Search Neutrality*, in THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET 435, 436 (Berin Szoka & Adam Marcus eds., 2010) (observing that search engine critics aim to keep search engines "from abusing their dominant position," but "[t]he hard part comes in defining 'abuse'"); see also Nicholas P. Dickerson, *What Makes the Internet So Special? And Why, Where, How, and by Whom Should Its Content Be Regulated?*, 46 HOUS. L. REV. 61, 90 (2009) ("The policies of Google . . . represent a glaring example of corporate abuse of regulatory power."); Frank Pasquale, *Beyond Innovation and Competition: The Need for Qualified Transparency in Internet Intermediaries*, 104 NW. U. L. REV. 105, 108 (2010) ("A troubling asymmetry has developed: as dominant intermediaries gather more information about users, users have less sense of exactly how life online is being ordered by the carriers and search engines they rely on.").

44. On the limitation of market forces in disciplining search engine behavior, see Oren Bracha & Frank Pasquale, *Federal Search Commission? Access, Fairness, and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149, 1179–86 (2008); Grimmelmann, *supra* note 43, at 440.

prejudicial to the interest of either users or information providers.⁴⁵ These complaints have led to demands for search engine regulation,⁴⁶ and, in turn, to the First Amendment counterargument. The exact nature of this free speech argument depends on competing understandings of the relevant speech and the relevant protected speech interest. The speech and the protected speech interest may be attributed to each of the actors in the tripartite relationship created by search engines: users, information providers, and the intermediary—the search engine itself. In what follows, I explain the exact nature of the use of the First Amendment as a shield against regulation of search results and the various versions of the argument as a function of the alternative understandings of the speech and speech interest involved.

B. What Regulation?

Whether and how the First Amendment applies to a particular regulation depends on the characteristics of the regulation. Proponents of search engine speech have cast their net widely, challenging the constitutionality of a broad array of regulations. Arguments for First Amendment protection for search results first appeared in cases where disgruntled website operators, adversely affected by allegedly illegitimate manipulation of search results, tried to impose legal liability on Google.⁴⁷ These plaintiffs relied on an assortment of business torts and civil causes of action. In response, Google argued that imposing liability under any of these causes of action on the basis of the search engine algorithm's rankings would abridge the search engine's speech rights, and several courts agreed.⁴⁸ These rulings imply that the First Amendment prohibits imposing liability based on search ranking, irrespective of the exact details of the relevant private law causes of action and their application in specific cases. More recently, prodded by complaints from Google's competitors about unfair practices in regard to its search results, the Federal Trade Commission (FTC) launched an investigation of Google's search practices.⁴⁹ The FTC

45. See, e.g., Viva R. Moffat, *Regulating Search*, 22 HARV. J.L. & TECH. 475, 487–90 (2009) (discussing claims of negative effects of search engine power leading to calls for regulation); Pasquale, *supra* note 43, at 110–24 (discussing the various dangers of new “unaccountable intermediaries” including search engines).

46. Moffat, *supra* note 45, at 489 (“Concerns over [the detrimental effects of search engine power] have prompted the call for centralized regulation.”).

47. See *supra* note 8.

48. See *Kinderstart.com v. Google, Inc.*, No. C 06-2057 JF (RS), 2007 WL 831806, at *21 (N.D. Cal. Mar. 16, 2007) (confronting Google's argument for immunity under the First Amendment in response to a wide range of causes of actions asserted against its search ranking practices); *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 U.S. Dist. LEXIS 27193, at *10–13 (W.D. Okla. May 27, 2003) (rejecting a claim for tortious interference with contractual relations because Google's ranking of a website in its results constituted opinions protected under the First Amendment and therefore could not be considered wrongful).

49. See *In re Google Inc.*, FTC File No. 111-0163 (Concurring and Dissenting Statement of Commissioner J. Thomas Rosch Regarding Google's Search Practices Jan. 3, 2012), http://www.ftc.gov/sites/default/files/documents/public_statements/concurring-and-

terminated the investigation with no significant results.⁵⁰ One major defense line deployed by Google's defenders, however, was that any interference with the search engine's discretion over its search results would violate the First Amendment.⁵¹ Finally, in light of this trend, various reform proposals suggesting statutory or administrative mechanisms for regulating or at least monitoring search ranking practices have had to contend with First Amendment objections.⁵²

As a result of these developments, the First Amendment has emerged as a doomsday defensive weapon deployed to counter any attempt to "regulate" search results prior to examining the regulations' merits or applying relevant doctrines. Bolstered by its early success, the generic speech argument can now be applied to virtually any format of "regulation" of search results and is beginning to spread to analogous realms.⁵³ The key feature common to all the various regulatory measures now under the shadow of the First Amendment is restrictions on the search engine's absolute power to identify and rank search results. Whether the restriction is the result of tort liability backed by civil remedies, administrative action backed by administrative enforcement powers, or a proposed specific regulatory regime, the logic of the argument is the same: any coercive interference with search results abridges speech and is thus prohibited by the First Amendment.

This Article is not concerned with the policy desirability of any specific measure aimed at constraining search engines' absolute discretion over their search results or with the optimal way for implementing such measures. A particular statutory scheme or the application of various common law causes of action to the practices of search ranking may be an undesirable or unworkable policy. Even if this is the case, however, whether the First Amendment generates a constitutional prohibition that blocks the implementation of any such measure—as many seem to think—remains a distinct and open question. The analysis here focuses on this threshold question, which has crucial implications for the ability of government to regulate in the information age well beyond the realm of search engine ranking practices.

dissenting-statement-commissioner-j.thomas-rosch-regarding-googles-search-practices/130103googlesearchstmt.pdf.

50. *See id.* at 1.

51. *See* EUGENE VOLOKH & DONALD M. FALK, FIRST AMENDMENT PROTECTION FOR SEARCH ENGINE SEARCH RESULTS (2012), available at <http://www.volokh.com/wp-content/uploads/2012/05/SearchEngineFirstAmendment.pdf>.

52. *See* Bracha & Pasquale, *supra* note 44, at 1188–1201; Jennifer A. Chandler, *A Right to Reach an Audience: An Approach to Intermediary Bias on the Internet*, 35 HOFSTRA L. REV. 1095, 1124–29 (2007).

53. *See* *Rosenberg v. Harwood*, No. 100916536, 2011 WL 3153314 (D. Utah May 27, 2011). Google had argued that a negligence claim based on Google Maps' faulty directions is barred by the First Amendment and by the Utah Constitution's protection for freedom of speech. The court avoided the constitutional question and decided the case on principles of tort law. *Id.*

C. *What Speech?*

The First Amendment argument rejects, then, *any* restriction of the search engine's absolute discretion over its results as a prohibited abridgment of speech. What, however, is the relevant speech being abridged? As explained in detail below, proponents of search engine speech have relied on different answers to this question and occasionally offered only opaque or ambiguous responses to it. There are three possible speech interests related to search engine results. Taking each of these speech interests as the focus of the First Amendment produces three very different versions of the free speech argument. Each of those arguments leads, in turn, to very different conclusions about the permissibility of search engine regulation.

1. Search Engine Constituencies' Speech

The first speech interest implicated by search results is both the most plausible and the most important. Yet, for reasons to be explained momentarily, this speech interest is ignored by most, especially by those who would use the First Amendment as an absolute shield for search engines' control over their result ranking. This is the speech interest of content providers, who depend on search engines for having their voice heard, and end users, who rely on the search engine to find and access information.

It is a commonplace observation that the internet and digital technology have opened up and democratized opportunities for speech. Famously, the U.S. Supreme Court has commented that any person with an internet connection "can become a town crier with a voice that resonates farther than it could from any soapbox."⁵⁴ But the realization of this potential requires much more than broad access to the digital means of speaking. Without an effective way for speakers to reach an audience and for users to locate information, the voice of most digital town criers is likely to remain confined to the empty space of their virtual soapbox. Search engines form a crucial element of the internet infrastructure that makes information effectively reachable. While users can reach internet content in other ways, search engine exposure is the lifeblood of many who offer information through the internet.⁵⁵ For large swaths of speech, the size of the audience depends—dramatically—on the existence and nature of search engine exposure. As an early influential commentary put it: on the internet, "to exist is to be indexed by a search engine."⁵⁶

The user's perspective is a mirror image of that of the information provider. Just as search engines are crucial for allowing information providers to attract users, they are also indispensable to users in locating

54. *Reno v. ACLU*, 521 U.S. 844, 870 (1997).

55. See Bracha & Pasquale, *supra* note 44, at 1164–65; Chandler, *supra* note 52, at 1107–08.

56. Lucas D. Intronza & Helen Nissenbaum, *Shaping the Web: Why the Politics of Search Engines Matters*, 16 INFO. SOC'Y 169, 171 (2000).

information relevant to their interests and needs. Professor James Grimmelman has recently described search engines as “advisors.”⁵⁷ Search engines help users navigate their way through the information flood of the digital age and find the information that is most relevant for their preferences.⁵⁸ Search engines are particularly effective and powerful tools for this job. They perform their task through (potentially iterative) interaction with the user and in a way that is highly tailored to the characteristics and input of each individual.⁵⁹ As “listeners,” users have a protected speech interest in unhindered access to others’ speech.⁶⁰ The speech interest of users in the functionality of search results, however, goes beyond that of mere passive listeners or consumers of information. Depending on their specific architecture, many internet venues enable commenting, user-provided posts, and other forms of multidirectional speech, and thereby blur the line between listeners and speakers.⁶¹ Users may interact with internet content or react to it “elsewhere,” on or off the internet, as in the case of publishing a post on one’s own blog criticizing an op-ed published in an internet news venue. But in many cases, users may produce speech that is even more closely entangled with the speech to which they gained access. This may happen in myriad ways, such as reacting to blog posts, posting comments to news reports, or taking part in a decentralized peer-production project. Every user is a potential—and often actual—speaker vis-à-vis information made accessible by search engines.

Search engines are, thus, vital speech-facilitating tools for both information providers and users. As a result, they occupy a powerful information gatekeeper position—a power that is dangerously susceptible to abuse, both by private parties and the government. Focusing on the latter, search engines’ gatekeeping position is already widely used by many

57. Grimmelman, *supra* note 12, at 874.

58. See Grimmelman, *supra* note 11, at 6; see also Chandler, *supra* note 52, at 1108. It is important to remember that, because of their role as critical information intermediaries, search engines not only serve the preferences of users but also inevitably shape them. See ELKIN-KOREN & SALZBERGER, *supra* note 41, at 72 (“By defining which information becomes available for each query, search engines may shape preferences, positions, beliefs and ideas.”); Bracha & Pasquale, *supra* note 44, at 1177–78 (analyzing search engines’ shaping of users’ preferences in terms of autonomy).

59. Grimmelman, *supra* note 12, at 894 (“[O]ut of all the ways that speakers and listeners can find each other, search is the single most listener-directed.”).

60. See *Bd. of Educ. v. Pico*, 457 U.S. 853, 867 (1982) (“[T]he Constitution protects the right to receive information and ideas.” (quoting *Stanley v. Georgia*, 394 U.S. 557, 564 (1969))); *King v. Fed. Bureau of Prisons*, 415 F.3d 634, 638 (7th Cir. 2005) (observing that freedom of speech “is also freedom to read”); *Conant v. Walters*, 309 F.3d 629, 643 (9th Cir. 2002) (“It is well established that the right to hear—the right to receive information—is no less protected by the First Amendment than the right to speak.”).

61. Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Towards Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 564 (2000) (describing how the internet communication model potentially blurs the line between information producers and consumers); Timothy Wu, *Application-Centered Internet Analysis*, 85 VA. L. REV. 1163, 1181 (1999) (explaining that assumptions about the effect of the internet on decentralization of speech power must be sensitive to the specific technological architecture involved).

governments as a censorial tool.⁶² Some internet speech can be extremely difficult to regulate,⁶³ but by targeting the intermediary function of search engines, governments can control its dissemination and access. China is the most conspicuous example,⁶⁴ but there are many other countries that order search engines to filter various websites from the results available within their territory on different grounds.⁶⁵

The prospects of similar censorial limitations on search engines in the United States are not as remote as one may assume. The driving forces behind this trend are intellectual property infringement and restrictions on “indecent” materials. Around the turn of the century, the difficulties associated with controlling information flows over a global decentralized network led to a trend of limiting access to information by regulating gatekeepers.⁶⁶ Internet service providers (ISPs) were the first targets. For example, several state laws, mostly struck down as unconstitutional, allowed state authorities to order ISPs to block access to websites containing materials defined as “harmful to minors.”⁶⁷ More recently, search engines, along with other intermediaries, appeared on the radar of regulators as potential regulative tools for preventing intellectual property infringement. For example, consider the Stop Online Piracy Act⁶⁸ (SOPA). This recently failed legislative attempt to block access to foreign websites containing infringing materials heavily relied on domestic intermediaries. The proposed statute included a specific provision empowering a court, on the initiative of the attorney general, to order a search engine to avoid linking to a targeted website designated as a “foreign infringing site.”⁶⁹ Against the backdrop of these trends, a more robust governmental, censorial use of search engines in the United States does not seem farfetched.⁷⁰

The crucial point for our purposes is that when government censorship targets access to information by regulating the search engine’s intermediary

62. Derek E. Bambauer, *Cybersieves*, 59 DUKE L.J. 377, 379 (2009) (“[M]ost countries use cybersieves to try to filter undesirable content . . .”).

63. Jonathan Zittrain, *Internet Points of Control*, 44 B.C. L. REV. 653, 654 (2003) (“[T]he Internet’s architecture has prominently stymied control efforts by those harmed by its less innocuous uses.”).

64. See generally ACCESS DENIED (Ronald Deibert et al. eds., 2008); JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET? ILLUSIONS OF A BORDERLESS WORLD (2006); INTERNET FILTERING IN CHINA IN 2004–2005: A COUNTRY STUDY (2005), available at https://opennet.net/sites/opennet.net/files/ONI_China_Country_Study.pdf; Bambauer, *supra* note 62, at 379; Internet Filtering Country Profile for China, OPENNET INITIATIVE (Aug. 9 2012), <https://opennet.net/research/profiles/china-including-hong-kong>.

65. See Bambauer, *supra* note 62, at 382–83.

66. See Ronald J. Mann & Seth R. Belzley, *The Promise of Internet Intermediary Liability*, 47 WM. & MARY L. REV. 239, 265 (2005); Zittrain, *supra* note 63, at 654–55; see also Michael D. Birnhack & Niva Elkin-Koren, *The Invisible Handshake: The Reemergence of the State in the Digital Environment*, 8 VA. J.L. & TECH. 6, 18 (2003).

67. See Derek E. Bambauer, *Orwell’s Armchair*, 79 U. CHI. L. REV. 863, 878–82 (2012) (surveying examples of the censorship strategy of “deputizing intermediaries” as applied to ISPs).

68. H.R. 3261, 112th Cong. (2011).

69. See *id.* § 102(c)(2)(B).

70. See Bambauer, *supra* note 67, at 866–67 (describing America’s move “to censor the Internet” through intermediaries).

function, the relevant speech interest is that of the search engine's constituencies: the websites made invisible and the users rendered blind. No doubt, the First Amendment has an important role to play in this context. These cases do not implicate freedom of speech, however, because any protected speech of the search engine is restricted. Rather, the restrictions imposed on the search engine are merely tools for violating the speech interests of others.

The speech interests of content providers and users, indirectly targeted in this way, are surely protectable by the First Amendment. An analogous law prohibiting the sale of paper to a certain publisher or ordering manufacturers to incorporate in all TV sets a device that blocks certain content would, no doubt, implicate the First Amendment.⁷¹ The First Amendment would apply, however, not to protect any speech interest of the paper maker or the TV manufacturer, but rather because the regulations target the speech of others.⁷² An example closer to the search engines context is the aforementioned early 2000s state legislative attempt to use ISPs for censorial purposes. Courts rigorously applied the First Amendment in those cases not because ISPs' speech was abridged by the duty to block certain websites, but because the threat of ISP liability could be an effective tool for interfering with the speech interests of content creators and users.⁷³ From the perspective of the speech interest of search engines' constituencies, legal limitations on search results must be subject to First Amendment scrutiny for exactly the same reason.

Identifying the relevant speech interest is not a mere technicality. Locating the relevant speech interest with the search engine's constituencies shapes the analysis and leads to results significantly different from those produced by a focus on a postulated protected speech interest of the search engine itself. As a threshold matter, there is the issue of standing. Search engines that challenge the constitutionality of regulations applied to them with a First Amendment construct based on protecting the speech interests of users and websites are third parties asserting the rights of others who are the direct parties whose speech interest is at issue. As a result, the complex body of law governing third party standing in First Amendment cases must be applied to decide whether and when search engines should be allowed to assert such claims on behalf of others.⁷⁴

71. *Cf. Minneapolis Star & Tribune Co. v. Minn. Comm'r of Revenue*, 460 U.S. 575, 591 (1983) (holding that a "use tax" on ink and paper that singled out newspapers violated the First Amendment).

72. See Robert Post, *Encryption Source Code and the First Amendment*, 15 BERKELEY TECH. L.J. 713, 721–22 (2000) (discussing First Amendment scrutiny triggered by the instrumental effect of a regulated subject matter on free-speech-relevant media).

73. See, e.g., *ACLU v. Johnson*, 194 F.3d 1149, 1156 (10th Cir. 1999); *Ctr. for Democracy and Tech. v. Pappert*, 337 F. Supp. 2d 606, 656 (E.D. Pa. 2004); *Cyberspace Commc'ns, Inc. v. Engler*, 55 F. Supp. 2d 737, 748–49 (E.D. Mich. 1999), *aff'd*, 238 F.3d 420 (6th Cir. 2000); *Am. Libraries Ass'n v. Pataki*, 969 F. Supp. 160, 177 (S.D.N.Y. 1997).

74. Traditionally, standing to bring a suit has been reserved to a plaintiff who can "aver an injury peculiar to himself." *Tyler v. Judges of the Ct. of Registration*, 179 U.S. 405, 406 (1900). But the strict requirement precluding third-party standing has softened over the last century in American jurisprudence. See generally Henry P. Monaghan, *Third Party*

Even assuming, *arguendo*, that search engines have standing, taking the speech interest of constituencies as the focal point of the analysis still matters a great deal. One major element of the analysis where this difference plays out is the question of content neutrality. Whether a regulation of speech is content based or content neutral determines the level of constitutional scrutiny applied and often decides the outcome of the First Amendment analysis.⁷⁵ When the focus of the analysis is the speech of websites and users, the critical element of content neutrality has to be determined in reference to the speech of those parties. From this perspective, many regulations that seek to use search engines as a censorial tool against websites' and users' speech will be content based and, therefore, subject to the exacting standard applied to such regulations.⁷⁶ Ordering search engines to exclude from their results certain materials that are deemed "harmful to minors," for example, clearly targets specific speech on the basis of its content. As a result, such regulations will have to meet a particularly stringent test to pass constitutional muster. By contrast, regulations purporting to remedy alleged search engine manipulations⁷⁷ will often be content neutral with respect to the speech of users and websites. For example, a general limitation on the search engine's ability to give a ranking preference to its commercial allies seems to be *prima facie* content neutral in regard to the speech of the search engine's constituencies: the regulation applies completely independent of the content of websites' or users' speech. As a result, regulations of this kind, when analyzed from the perspective of the search engine constituencies' speech interests, will usually be scrutinized under the relatively lenient standard applicable to content-neutral laws and will likely pass muster. This is not a mere quirk or unpredictable result of the doctrine. As a normative matter, when the substantive focus is the speech of constituencies, regulations that do not target a particular view or content embodied in the speech of information providers or users are less suspicious and *should* be subject to the more lenient review standard.

Standing, 84 COLUM. L. REV. 277 (1984) (chronicling the diminishing requirements needed for a party to assert in court the rights of another). In First Amendment jurisprudence, the requirement of an injury-in-fact has been particularly blunted by several exceptions and mitigating doctrines. *See* *Amato v. Wilentz*, 952 F.2d 742, 748–55 (3d Cir. 1991) (discussing factors relevant for third-party standing in the context of the First Amendment). For a discussion of third-party standing in the context of free speech overbreadth doctrine, see Henry Paul Monaghan, *Overbreadth*, 1981 SUP. CT. REV. 1. *See also* Richard H. Fallon, Jr., *Making Sense of Overbreadth*, 100 YALE L.J. 853 (1991); Note, *Overbreadth and Listeners Rights*, 123 HARV. L. REV. 1749 (2010).

75. *See generally* DANIEL A. FARBER, *THE FIRST AMENDMENT* 20 (3d ed. 2010); 1 RODNEY A. SMOLLA, *SMOLLA & NIMMER ON FREEDOM OF SPEECH* § 3:1 (2012) ("The distinction between content-based and content-neutral regulation of speech is one of the central tenets of contemporary First Amendment jurisprudence."); Martin H. Redish, *The Content Distinction in First Amendment Analysis*, 34 STAN. L. REV. 113 (1981).

76. *See, e.g.*, *Sable Commc'ns, Inc. v. FCC*, 492 U.S. 115, 126 (1989) ("The Government may . . . regulate the content of constitutionally protected speech in order to promote a compelling interest if it chooses the least restrictive means to further the articulated interest.")

77. *See supra* text accompanying notes 47–51.

The foregoing analysis means neither that any regulation that targets constituencies' speech on the basis of its content is always unconstitutional, nor that any attempt to restrict search results that is content neutral in regard to the speech of constituencies is allowed. Consider a hypothetical myopic legislator who decides that a good way of remedying what he perceives as the problem of search bias is to compel search engines to randomize the ranking of search results (whether across users or across multiple searches by one user). Such a regulation is neutral in regard to the content of speech by the search engine's constituencies. But its incidental effect is potentially so destructive⁷⁸ to the relevant speech interest—that of users to effectively locate sought-out websites and of websites to effectively reach interested audiences—that the regulation likely violates the First Amendment.⁷⁹ Such a regulation is analogous to mandating that all books must be printed using dissolving ink or that all TV sets must block three channels on a random, rotating basis. Not all content-neutral regulations of speech are allowed under the First Amendment. Nevertheless, a focus on the speech of the search engines' constituencies allows much breathing space for regulations that do not target the speech interest of websites or users in a content-based manner.

The speech interest of the search engines' constituencies—both information providers and users—merits vigilant protection against blatant or subtle governmental attempts to use search engines as censorial tools. Yet an analysis focused on this speech interest allows much room for regulations of search results that do not attempt to target specific speech of the search engine's constituencies. This is exactly the reason why Google and its defenders mostly ignored this understanding of the relevant speech interest in the debate over search engines' complete control of their results. With a clear focus on the plausible and natural speech interests at stake—those belonging to websites and users—the First Amendment is hardly an impenetrable shield against virtually any legal attempt to scrutinize search practices. Hence, search engine proponents needed greener pastures in the form of more creative speech arguments.

78. A limited element of randomization is not necessarily destructive to the quality of search results, and arguably if it is well designed, it may even improve search results' quality. See generally Sandeep Pandey et al., *Shuffling a Stacked Deck: The Case for Partially Randomized Ranking of Search Engine Results*, 31 VLDB CONF. (2005) (suggesting that the introduction of a controlled amount of randomness into search result ranking methods may improve their quality).

79. In doctrinal terms, such regulation is likely to fail one of the prongs of the test applied to content-neutral laws because it is probably not narrowly tailored to achieve the legitimate state interest underlying it. See *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 662 (1994) (“[A] content-neutral regulation will be sustained if ‘it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.’” (quoting *United States v. O’Brien*, 391 U.S. 367, 377 (1968))).

2. The Editorial Search Engine

How could the speech interest of the search engine itself, rather than that of its constituencies, be the center of First Amendment analysis? One answer that has emerged in the recent search battles is to treat the search engine as an editor of content—the equivalent of the *New York Times* or an organizer of a parade.⁸⁰ This construct separates the speech and the speech interest. The relevant speech is that of the websites indexed by the search engine, but the protected speech interest belongs to the search engine itself in its editorial capacity. This move builds on a strand of the case law that extends First Amendment protection to editors' discretion to control their speech venue by deciding what speech to include or exclude. The seminal case is *Miami Herald Publishing Co. v. Tornillo*,⁸¹ where the Supreme Court found unconstitutional a "right of reply" statute that compelled newspapers to publish responses to certain included content.⁸²

The *Tornillo* rule combines two analytically distinct elements. The first is the assumption that freedom of speech is not limited to censorial attempts to suppress certain speech, but extends also to attempts to compel speech. The underlying rationale is that genuine freedom to express one's ideas and views includes a negative as well as a positive dimension. Truly protecting this freedom requires both that individuals can choose what to say and that they are free to decide what not to say.⁸³ By extension, this rationale also applies to attempts to dictate the mode of inclusion or prominence given to certain content.⁸⁴ The second element of the rule is that it applies not just to cases where someone is compelled to generate certain content or directly express it, but also to cases where one is compelled to *include*, within her speech venue, other speakers' generated and expressed speech.⁸⁵ While newspapers are the classic editorial entities enjoying protection against compelled speech generated by others, the rule has been extended to other entities, including the organizers of parades,⁸⁶ and even business entities

80. See generally VOLOKH & FALK, *supra* note 51; Bruce D. Brown & Alan B. Davidson, *Is Google Like Gas or Like Steel?*, N.Y. TIMES, Jan. 5, 2013, at A17 ("[S]earch 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."). The editor argument also animates the *Langdon* decision, although the opinion simply cites several cases involving compelled speech of editors and leaves its underlying reasoning somewhat obscure. See *Langdon v. Google*, 474 F. Supp. 2d 622, 629 (D. Del. 2007).

81. 418 U.S. 241 (1974).

82. *Id.* at 258.

83. See *Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp.*, 515 U.S. 557, 573–74 (1995); *Pac. Gas & Elec. Co. v. Pub. Util. Comm'n*, 475 U.S. 1, 11 (1986) ("[A]ll speech inherently involves choices of what to say and what to leave unsaid."); *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 645 (1943) (Murphy, J., concurring) ("[The First Amendment] includes both the right to speak freely and the right to refrain from speaking at all.").

84. See *Miami Herald*, 418 U.S. at 258; VOLOKH & FALK, *supra* note 51, at 8–9.

85. See *Hurley*, 515 U.S. at 570 (holding that "an edited compilation of speech generated by other persons" is protected under the First Amendment).

86. See *id.* at 557.

distributing standard informational materials.⁸⁷ One federal district court has already ruled that search engines' results are protected speech under this logic, although in a conclusory manner and without clarifying the exact nature of the relevant speech.⁸⁸ The court in *Langdon v. Google, Inc.*, citing to the editorial rights of newspapers cases, found that any attempt to interfere with the search engine's discretion over its results through injunctive relief "would compel it to speak" and is therefore precluded by the First Amendment.⁸⁹

At first blush, recasting search engines as editors may seem a winning move. A search engine, no doubt, selects (by way of inclusion in and exclusion from the search results) and arranges (by way of ranking) the content of websites to which users arrive through its services. In this limited sense, search results constitute an editorial product. Any attempt to deny the search engine the protection extended to other editors may seem based on irrelevant distinctions that have no foothold in the law, such as the fact that search results are produced by a computer algorithm or that their creation involves interaction with users. But such a hasty conclusion ignores both legal doctrine and the rationale behind it. The case law in this area extends protection to one entity vis-à-vis speech generated and expressed by others on the basis of an explicit rationale: the existence of a layer of expression that is attributable to the editorial entity itself, rather than to those who generated the speech. Just as the case law acknowledges that this rationale requires extending the rule to contexts beyond the core case of a newspaper, it also warns against applying the rule where the rationale does not apply.⁹⁰

When does the rationale based on the assumption of an expressive layer attributable to the editor apply? Two main situations appear in the case law, neither of which is applicable to search engines. The first and most common situation is when the entity that controls the speech venue, by virtue of its editorial position, is likely to be associated with the content.⁹¹ We plausibly speak of a *New York Times* article even when the author of the article is not an employee of the *Times*. It is plausible that many associate the *New York Times* with its op-eds, and even with the

87. See *Pac. Gas*, 475 U.S. at 1.

88. *Langdon v. Google, Inc.*, 474 F. Supp. 2d 622 (D. Del. 2007).

89. *Id.* at 629–30.

90. See *Rumsfeld v. Forum for Academic & Institutional Rights, Inc.*, 547 U.S. 47, 62 (2006) (holding that a law denying federal funds to higher education institutions that refused on-campus access to military recruiters "is a far cry from the compelled speech" precedents); *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 655–57 (1994) (distinguishing a regulation of a cable provider from compelled speech precedents).

91. See *Rumsfeld*, 547 U.S. at 65 (holding that the compelled speech rule does not apply where there is little likelihood that "the views of those engaging in the expressive activities would be identified" with the venue owner); *Hurley*, 515 U.S. at 575 (observing that admitting the plaintiff to the parade was likely to be perceived as a result of the organizer's determination "that its message was worthy of presentation and quite possibly of support as well"); *Turner Broad. Sys., Inc.*, 512 U.S. at 655 (holding that the rule against compelled speech does not apply when there is little risk that cable viewers would think that must-carry channels "convey ideas or messages endorsed by the cable operator").

advertisements it carries, even if they understand that the content was not produced by its employees. Given the practices of journalism, the newspaper is seen as endorsing the speech, or at least as associating itself with it in a meaningful way. This rationale may apply in other contexts beyond the core case of a newspaper, but it does not apply in all cases when a speech venue is forced to host unwanted content. Most people do not associate a *Yellow Pages* directory with the speech offered by the entities listed in it, even if the directory engages in some selection and arrangement of its index. The Court has refused to apply editorial speech protection in cases in which the relevant entity is unlikely to be seen as an editor of the speech in the sense of being plausibly associated with it by others.⁹²

Two related criteria, developed by courts for separating the goats, where this rationale does not apply, from the sheep, where it mandates protection, point in a clear direction when applied to the case of search engines. First, no compelled speech argument lies where there is “little likelihood that the views of those engaging in the expressive activities would be identified with” the entity claiming the protection of the First Amendment.⁹³ In *Rumsfeld v. Forum for Academic and Institutional Rights*, the Supreme Court rejected an argument by law schools that the First Amendment protected their right to exclude military recruiters from campus because allowing their presence could send a message of identification with the military’s “don’t ask, don’t tell” policy.⁹⁴ The Court distinguished the compelled speech precedents by observing, “Nothing about recruiting suggests that law schools agree with any speech by recruiters” and that nothing “restricts what the law schools may say about the military’s policies.”⁹⁵

Search engines stand in a similar position in regard to the content of individual websites they index. Users are unlikely to associate the content of indexed websites with the search engine. Nor do they have a plausible reason to do so. Because of their “advisory” function,⁹⁶ search engines play a somewhat more active role than cable providers, which are seen in the case law as the paradigmatic example of completely passive conduits for delivering content by others.⁹⁷ Nevertheless, in regard to the crucial element of an association with the content being carried or linked, search engines are the equivalent of cable providers. This follows from the nature of the “advice” provided by search engines. The ideal function of the search engine for its users is in locating materials most relevant for their own preferences. Rather than providing its own evaluation and endorsement of websites or trying to convince users of particular assessments of their content, the search engine tries to present to the user

92. See *Rumsfeld*, 547 U.S. at 62–65; *Turner Broad. Sys., Inc.*, 512 U.S. at 655–56; *PruneYard Shopping Ctr. v. Robins*, 447 U.S. 74, 87 (1980).

93. *Rumsfeld*, 547 U.S. at 65.

94. *Id.* at 64–65.

95. *Id.* at 65.

96. See *supra* text accompanying notes 42–43.

97. See *Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp.*, 515 U.S. 553, 576 (1995); *Turner Broad. Sys., Inc.*, 512 U.S. at 655.

links to the content most relevant for her own subjective preferences, as inferred from the search term and other relevant data.⁹⁸ At play here is the difference between you responding to me asking which is the best movie in town with an enthusiastic recommendation, and you naming three movies in response to my question: “You know my idiosyncratic taste in movies, which ones do you think I’ll enjoy the most?” Search engines are analogous to the latter case. It is their “mind-reading” quality, at least as they are perceived by users, that makes it highly unlikely that users associate the search engine with the content of the websites it lists or assume any endorsement or editorial discretion in regard to such content.⁹⁹ In some cases, search engines receive substantial public criticism over the material they list and link to in their search results.¹⁰⁰ There is a crucial difference, however, between associating a controversial content of a listed website with the search engine and recognizing that the search engine has the power to reduce the visibility of this content. The best-known public claims against Google in such cases seem to be in the latter vein.¹⁰¹

In other contexts, search engines stress their disassociation from the content they list and rely on that disassociation. To avoid liability stemming from the content they index, usually under tort or intellectual property laws, search engines regularly take the position that they are not associated with that content as either publishers or editors.¹⁰² It is hardly

98. See Grimmelmann, *supra* note 12, at 894 (“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.”).

99. Eric Goldman, *Search Engine Bias and the Demise of Search Engine Utopianism*, 8 YALE J.L. & TECH. 188, 198 (2006) (referring to the “mind reading abilities” of search engines). In practice, search engines’ ranking is not completely deferential to users’ preferences and interests. But to maintain their appeal and avoid losing users, search engines must maintain both the user perception of fidelity to users’ interests and a considerable degree of actual such fidelity. *Cf. id.* at 196 (“Search engines that disappoint . . . are accountable to fickle searchers.”).

100. Famously, in 2004, Google came under fire when it was revealed that the search results for the term “Jew” listed at a high rank a highly anti-Semitic website. Following a public outcry, Google resisted demands for removing the controversial result and published an online statement called *An Explanation of Our Search Results*, in which it explained, “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.” See *An Explanation of Our Search Results*, GOOGLE, <http://www.google.com/explanation.html> (last visited Feb. 24, 2014). For a discussion of the public controversy, see SIVA VAIDHYANATHAN, *THE GOOGLIZATION OF EVERYTHING (AND WHY WE SHOULD WORRY)* 64–66 (2011).

101. See VAIDHYANATHAN, *supra* note 100, at 66 (criticizing Google for the high visibility of an anti-Semitic website in response to certain search queries because the results “are clearly within Google’s control”).

102. See *Parker v. Google, Inc.*, 242 F. App’x 833, 835 (3d Cir. 2007). Search engines rely on two main statutory safe havens in this context. Section 230 of the Communication Decency Act mandates that the provider of an “interactive computer service” shall not be treated as the speaker or publisher of any information provided by another. 47 U.S.C. § 230(c)(1) (2006). Section 512(d) of the Digital Millennium Copyright Act immunizes providers of “information location tools” from monetary relief for copyright infringement. 17 U.S.C. § 512(d) (2012). A search engine does not qualify for the immunity under certain circumstances, including when it has actual or constructive knowledge of the infringing activity. Withdrawing the immunity where the search engine possesses knowledge and allowing certain injunctive relief is consistent with the treatment of the search engine as a

consistent for search engines to disclaim the legal responsibilities of editors and publishers while also claiming the free speech protection extended to them.¹⁰³

Some auxiliary indicators that courts sometimes find relevant to the question of association between a presumed editor and compelled content point in the same direction. In the unlikely event that a concern of association between the search engine and indexed content does arise, search engines can easily disavow any such connection.¹⁰⁴ Similarly, should a search engine choose to provide its own speech, either by way of supplying alternative content to indexed websites or as substantive endorsements of websites, nothing in the regulations contemplated here interferes with its ability to do so.¹⁰⁵

The second situation where courts are willing to assume a separate layer of expression attributable to the editor is when the edited content constitutes a collective expressive entity—a whole that is greater, or at least distinct, from the sum of its parts. The case law distinguishes between two kinds of expressive venues. The first is a mere content *aggregator*, which just collects expressive materials as discrete audience-selectable units. The second is a content *compiler*, which collects and combines content into a collective whole imbued with an overarching meaning.¹⁰⁶ In the latter case, even when the entity controlling the venue is not required to express endorsement of any particular material and is not likely to be seen as its originator, specific speech is forced upon it. The audience may still plausibly associate this entity with the expressive whole because of its editorial capacity in shaping its meaning. The meaning of this whole is necessarily shaped by the units included in it, contrary to the editor's preference. Thus, in *Hurley v. Irish-American Gay, Lesbian & Bisexual Group*, the Supreme Court found that a parade organizer had a protected First Amendment interest to exclude a gay organization from participating in the parade because “[u]nlike the programming offered on various channels by a cable network, the parade does not consist of individual, unrelated segments that happen to be transmitted together for individual selection by members of the audience.”¹⁰⁷ Irrespective of the attribution of any individual unit, the court explained, “the parade’s overall message is

passive instrument for reaching content rather than a publisher or editor associated with it. A duty to act in cases of knowledge under threat of liability and injunctive relief ordering the disabling of access to linked content treat the search engine as an enforcement tool rather than an entity associated with the content. This roughly tracks the concept of treating the search engine as an important instrument that affects the speech interest of others in the First Amendment context. See *supra* text accompanying notes 62–73. First Amendment protection that is focused on the speech interest of search engine constituencies and the limited liability for infringing content are thus matching aspects of seeing the search engine as an instrumentality for speech by others rather than a speaker, editor, or publisher.

103. See Bracha & Pasquale, *supra* note 44, at 1192–93; Wu, *supra* note 24, at 1528–29.

104. See *Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp.*, 515 U.S. 557, 576 (1995).

105. See *id.* at 580; *Pac. Gas & Elec. Co. v. Pub. Util. Comm’n*, 475 U.S. 1, 23–24 (1986); *PruneYard Shopping Ctr. v. Robins*, 447 U.S. 74, 87 (1980).

106. See *Hurley*, 515 U.S. at 576–77.

107. *Id.* at 576.

distilled from the individual presentations along the way, and each unit's expression is perceived by spectators as part of the whole."¹⁰⁸ In short, whether or not the editor is seen as endorsing a specific unit, the forced inclusion of a unit changes the overall meaning of the whole. Critically, however, this only applies where there is an overarching expressive whole that is attributable to the editor, unlike in the case of the cable provider.

Search engines are aggregators, rather than compilers. Websites indexed by search engines, unlike a parade or a newspaper, lack the quality of an integrated expressive whole with which the entity controlling the venue is associated. While the search engine selects and hierarchically organizes the items listed in search results, users do not perceive the websites linked in them as an integrated whole with an overarching meaning. No one runs a Bing search to experience the overall meaning of a "compilation" made of the group of websites collected by the results of the search. And if someone does, she is unlikely to see Microsoft as the editor of this postulated "compilation" of websites. Websites on search results, much like the individual channels of a cable provider, are discrete units offered for selection by users. If users likely do not associate search engines with the content of individual websites, then this is the end of the analysis. Unlike the parade in *Hurley*, there is no greater expressive whole with which a search engine is likely to be associated whose meaning is shaped by the forced inclusion of a unit.

In sum, when the speech embodied in indexed websites is taken as the relevant frame of reference, search engines do not qualify for First Amendment protection given to editors against compelled speech.¹⁰⁹ Search engines are not plausibly associated with the content of indexed websites or seen as endorsing this content. Nor is there any integrated expressive whole attributable to the search engine whose meaning is altered by a forced inclusion irrespective of association of the search engine with individual expressive units.

3. The Opinionated Search Engine

Setting aside either search engines' constituencies or the search engine in an editorial capacity as the protected speech interest, one last speech argument remains. This is, by far, the most creative, powerful, and dangerous argument. It argues that each search result ranking embodies implied observations of relevance in response to the search query, and that these observations are protectable speech. Thus, in 2003, a federal district court found that Google's search results rankings "are opinions—opinions of the significance of particular web sites as they correspond to a search query," and that "[o]ther search engines express different opinions" based

108. *Id.* at 577.

109. A number of scholars have come to the same conclusion. See Bracha & Pasquale, *supra* note 44, at 1190–92; Chandler, *supra* note 52, at 1126–29; Wu, *supra* note 24, at 1528–29.

on their methods of ranking websites.¹¹⁰ The argument rests on the premise that search results presented to users contain several layers of meaning. The top layer of meaning—that of denotation—consists of the immediate meaning communicated to users by the textual or visual information presented.¹¹¹ In textual searches, this typically includes the title of indexed websites, their URLs, and a short description. But this information (that the indexed websites themselves typically generate) is not the speech in which protection is claimed. The underlying layer of meaning—that of connotation—contains a different expressive message: propositions about the order of relevance of the listed websites for users' preferences in the context of the particular search query.¹¹² This connotative meaning can be stylistically represented as: “website X is most relevant to this user in regard to this search; website Y is next in relevance; etc.” This meaning that is clearly generated by the search engine itself, the argument goes, is the protected speech.

This construct offers the best of all possible universes from the point of view of search engines. Unlike the editorial search engine argument, it identifies the protected speech with expression directly generated by the search engine, thereby avoiding the fatal flaw of claiming protection vis-à-vis speech whose association with the search engine is dubious. By contrast to the construct focusing on the speech of search engines' constituencies, it locates the protected speech interest with the search engine, thereby making almost any attempt to limit search engine discretion suspect. When observations of relevance are taken as the protected expression, almost any imaginable interference with the search engine's control of its results is inexorably intertwined with an abridgment of its speech. An external constraint shaping the search results in any way necessarily shapes the observations of relevance embodied in them. Moreover, since the observations of relevance are targeted because of their content, any regulation of the kind contemplated by this Article is content based in respect to this expression and therefore subject to the more exacting level of scrutiny. In short, this version of the First Amendment argument, if successful, emerges as a true doomsday weapon capable of quashing any attempt to limit search engines' absolute discretion over their results.

But is the argument successful? Are implied observations of relevance the kind of speech that the First Amendment protects? Professor Stuart Benjamin has recently answered this question with a resounding yes.¹¹³ According to Benjamin, First Amendment jurisprudence criteria determining what kind of speech receives protection yield a clear result in

110. *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 U.S. Dist. LEXIS 27193, at *11 (W.D. Okla. Oct. 17, 2002).

111. On denotation, see ROLAND BARTHES, *ELEMENTS OF SEMIOLOGY* 89–90 (Annette Lavers & Colin Smith trans., 1983).

112. On connotation, see *id.*

113. Benjamin, *supra* note 16, at 1446–67.

this case.¹¹⁴ Protected speech under the First Amendment includes any communication of a substantive message from a speaker to a listener who can potentially recognize the message.¹¹⁵ This broad definition of covered speech is limited only by a narrow and strict list of well-recognized exceptions such as obscenity or sedition.¹¹⁶ Courts are hostile to any attempt to expand this narrow list of exceptions. In a series of recent decisions, the Supreme Court demonstrated such hostility when it adamantly rejected any attempt to expand the limited list of categories of uncovered speech or to restrict protection to speech not within these categories on the basis of various distinctions.¹¹⁷

Arguably, the application of this framework to our context is straightforward. Implied observations of relevance embodied in search results communicate a substantive message from the search engine, a message that is potentially understandable and, most often, actually understandable by users. This communication does not fall within any of the traditional categories of speech excluded from the ambit of the First Amendment. No other distinction, such as the existence or absence of a clear articulable viewpoint or the subject matter of the message, is relevant. Therefore, search engine rankings constitute protected speech under the First Amendment. End of debate.

Except that it is not. As a doctrinal matter, applicable law, far from being as clear as the above analysis implies, constitutes one of the darkest and most obscure corners of First Amendment doctrine. Underlying normative considerations point clearly against construing the relevant rules in a way that extends First Amendment protection to search engines' implied observations of relevance and to a large universe of similar communication. And existing law already contains, in an embryonic form, the mechanisms for denying First Amendment protection to this sort of communication without running the risks that the Supreme Court's narrow approach to categories of excluded speech is designed to avoid. The remainder of this Article elaborates, in turn, on each of these propositions.

114. *See id.* at 1447 (“[T]he First Amendment encompasses a great swath of algorithm-based decisions—specifically, algorithm-based outputs that entail a substantive communication.”).

115. *See id.* at 1458–61. The seminal Supreme Court case often read as standing for this proposition is *Spence v. Washington*, 418 U.S. 405, 410–11 (1974) (holding that the First Amendment applies when “[a]n intent to convey a particularized message was present, and in the surrounding circumstances the likelihood was great that the message would be understood by those who viewed it”).

116. *United States v. Stevens*, 130 S. Ct. 1577, 1584 (2010) (describing a limited list of “historic and traditional categories [of excluded speech] long familiar to the bar”).

117. *Id.* at 1586 (rejecting “a freewheeling authority to declare new categories of speech outside the scope of the First Amendment”); *see also* *United States v. Alvarez*, 132 S. Ct. 2537, 2547 (2012); *Brown v. Entm’t Merchs. Ass’n*, 131 S. Ct. 2729, 2734 (2011) (“[N]ew categories of unprotected speech may not be added to the list by a legislature that concludes certain speech is too harmful to be tolerated.”).

II. WHY SEARCH ENGINE RANKINGS ARE NOT PROTECTABLE SPEECH

As a doctrinal matter, it is far from clear that First Amendment law extends protection to implied observations of relevance embodied in search results. In part, free speech protection is limited because the regulation might be targeting one of the traditional categories of unprotected speech. Under current circumstances, much of the communication singled out for regulation is likely to constitute deception or fraud—a category of speech in regard to which First Amendment exclusionary rules allow much leeway for regulation.¹¹⁸ In the long run, however, deception may be an unreliable foundation. Changed circumstances may eliminate the deceptive nature of certain manipulations of search results but not the manipulation. Moreover, the concept of deception is ill suited for dealing with the greater implications of the extremely broad interpretation of the First Amendment claimed by proponents of search engines' speech.

A more fundamental basis for excluding search ranking is the concept of First Amendment coverage. Many commentators acknowledge that the First Amendment does not cover a vast amount of communication that is well beyond the traditional categories of excluded speech.¹¹⁹ The regulation of uncovered speech does not trigger any level of First Amendment scrutiny.¹²⁰ Unfortunately, legal doctrine on this subject is opaque. In the rare cases when courts have to deal with arguments about uncovered speech, they typically use evasive measures and technical classifications to avoid free speech analysis.¹²¹ The sweeping claim for protection of search engine speech no longer allows obscuring the question of coverage in this way. The only satisfactory way of answering the question, for whose resolution no clear guidance exists in the case law, is through normative analysis. Building on Robert Post's concept of First Amendment-relevant social practices, I argue that a close look at the actual social practices of search engine "opinions" reveals no normative ground for their inclusion within the protective zone of freedom of speech. Moreover, the broader implications of such an inclusion may be disastrous. Implied observations of relevance of the kind embodied in search results are found almost everywhere. If the First Amendment is construed to cover such speech, almost no social or economic practice will be beyond its reach, and almost no governmental, economic, or social regulation will be free of the exacting standard of First Amendment scrutiny.

These arguments hinge on the specific social practices of search engine speech, not on the abstract quality of the speech as having been generated by a computer algorithm. As such, this analysis operates on a much more

118. See *infra* text accompanying notes 122–23.

119. See *infra* notes 149–50.

120. See Schauer, *supra* note 20, at 1769 (explaining that, when a case is not covered by the First Amendment, "the entire event—an event that often involves 'speech' in the ordinary language sense of the word—does not present a First Amendment issue at all, and the government's action is consequently measured against no First Amendment standard whatsoever").

121. See *infra* notes 153–54.

fine-grained level than arguments that treat “algorithmic speech” or “machine speech” as homogenous categories that determine whether the First Amendment applies. My argument is that the specific social practices of search engine ranking are not sufficiently connected to any free speech values to justify First Amendment coverage. It leaves open the possibility that other forms of algorithm and machine speech are covered by the First Amendment. What matters is not the general characterization of speech as algorithmic, but rather the specific social interactions between speakers and users within which it takes place.

A. *Fraud*

James Grimmelmann has recently explained that much of the manipulation under attack by critics of search engines may actually constitute deception of users.¹²² How is deception possible in regard to opinions of relevance? As one federal court observed in *Search King, Inc. v. Google Technology, Inc.*,¹²³ search results are “fundamentally subjective in nature” 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 depending on the various factors.”¹²⁴ There is no single, correct, objective answer to the question of relevance, and therefore it seems that there are no false answers. The point of the *Search King* court’s reference to search ranking as subjective “opinions” is to classify it as the equivalent of beliefs, values, and taste-judgments where “there is no such thing as a false idea,” in contrast to “false statements of fact.”¹²⁵ What work can the concept of deception do in regard to such subjective approximations of relevance? As Grimmelmann explains, even in the absence of an objective yardstick for relevance, rankings can still be subjectively false. This happens when a search engine changes the ranking of a website in a way that is inconsistent with its “own assessment of relevance.”¹²⁶ Search engines represent both explicitly and implicitly that their results are based on relevance to users,¹²⁷ so producing results that by the search engine’s own lights do not meet this criterion is a false representation.

Grimmelmann sees deception predominantly as a litmus test for deciding when, as a policy matter, interfering with the search engine’s discretion is justified. But the category of deception has another merit: it happens to be one of the traditionally recognized content-based categories where courts, at

122. Grimmelmann, *supra* note 12, at 926–32.

123. No. Civ-02-1457-m, 2003 U.S. Dist. LEXIS 27193 (W.D. Okla. May 27, 2003).

124. *Id.* at *10.

125. *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 339–40 (1974). Indeed, Google itself, apparently attuned to the First Amendment implications, has changed its official line from describing its ranking algorithm as objectively measuring facts to presenting it as a manifestation of subjective opinions. See Cade Metz, *Google Drops Nuke on ‘Objective’ Search Engine Utopia*, REGISTER (Dec. 16, 2010), http://www.theregister.co.uk/2010/12/16/google_algorithms_are_google_opinions/.

126. Grimmelmann, *supra* note 14, at 926.

127. *Id.* at 929.

least when some additional elements are present, are willing to limit the application of the First Amendment. The U.S. Supreme Court has observed that “[u]ntruthful speech, commercial or otherwise, has never been protected for its own sake,”¹²⁸ and has consistently mentioned this category as one of the limited areas where the law has “permitted restrictions upon the content of speech.”¹²⁹ As the Court recently emphasized, false speech is not excluded wholesale from protection under the First Amendment.¹³⁰ Thus the intersection between the First Amendment and civil wrongs involving misrepresentation is more complex than a sweeping denial of First Amendment protection to any false communication. In fact, the case law requires varying degrees of fault for imposing constitutionally sound civil liability, depending on various factors, such as the nature and context of the speech, the wrong involved, and the remedy sought.¹³¹ This makes little difference in our context, however. Search results deception ipso facto involves the highest degree of fault: knowing, intentional misrepresentation or “malice.” The falsity here requires a representation that rankings are based solely on relevance, when knowingly, under the search engine’s own subjective criteria, they are not. Malice—the highest degree of fault applied by courts—is built into the definition.¹³² It follows that when the regulation at issue targets deception by search engines, any First Amendment defense falls flat.

Deception is an important concept that can serve as a temporary stopgap measure for neutralizing the debilitating effect of the First Amendment on any regulation of search results. Presently, many of the practices that critics of search engine manipulation seek to regulate may be fairly described as involving fraud in the sense explained above. For several reasons, however, it is a partial remedy and in the long run probably no remedy at all.

First, there may be policy reasons, both user oriented and website oriented, for restricting certain manipulations of search results independent

128. *Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council, Inc.*, 425 U.S. 748, 771 (1976).

129. *United States v. Stevens*, 130 S. Ct. 1577, 1584 (2010); *see also* *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n*, 447 U.S. 557, 574 (1980) (Blackmun, J., concurring); *Gertz*, 418 U.S. at 340.

130. *United States v. Alvarez*, 132 S. Ct. 2537, 2546–47 (2012) (observing that “[s]ome false speech may be prohibited,” but rejecting “the notion that false speech should be in a general category that is presumptively unprotected”).

131. Famously, in *New York Times Co. v. Sullivan*, the Court required actual malice for defamation liability arising out of a false statement by a newspaper about a public official on a matter of public concern. *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 279–80 (1964). In the case of compensatory damages for a false statement by media about a private individual, the Court left it to state law to require a lower level of fault. *See Gertz*, 418 U.S. at 337; *see also* *Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc.*, 472 U.S. 749, 755–61 (1985) (plurality opinion) (allowing punitive damages for a defamatory statement on a matter of private concern in the absence of malice). The effect of the First Amendment on torts other than defamation is a source of a separate set of rules and disputes about the appropriate standard. *See generally* Daniel J. Solove & Neil M. Richards, *Rethinking Free Speech and Civil Liability*, 109 COLUM. L. REV. 1650 (2009).

132. Grimmelmann, *supra* note 12, at 930–31.

of a concern about fraud or misrepresentation.¹³³ To the extent that regulations motivated by these reasons target practices that do not involve fraud per se, they can no longer enjoy this escape route from the shadow of the First Amendment.

Second, and more fundamentally, as explained below, the broad theory behind the opinions of relevance argument threatens to extend First Amendment scrutiny to vast areas of economic and social regulation, well beyond the realm of search engine ranking.¹³⁴ Even those whose concern in the search engine context is limited to fraud may recognize other policy interests worthy of protection in this broader context. Yet if its application is only limited by the fraud category, the First Amendment will form a formidable barrier for regulation in those other areas.

Most importantly, deception is a dynamic concept, dependent on contingent social circumstances. What is deceptive today, especially on the basis of implicit representations, may not be deceptive tomorrow when social circumstances and public expectations shift. As Ellen Goodman explains in the analogous context of stealth marketing, “[c]onsumer savvy reduces deception by unmasking what was once hidden.”¹³⁵ Whether users assume that search results are solely based on relevance and are completely free of bad faith deviance from that criterion is an empirical question. However, to the extent that complaints about search engine manipulation become more publicly visible, as they have in recent years, public skepticism is likely to grow. As users become less trusting of search engines’ practices, they are less likely to expect purely relevance-based ranking, and therefore they are less likely to be deceived when results are in fact not purely relevance based.¹³⁶ Whether we have reached this point is debatable, but deception alone becomes a shaky long-term foundation for escaping First Amendment scrutiny.

Note that even those whose policy concerns focus solely on deceptive search engine practices are unlikely to be consoled by deception dissolving simply due to a changing baseline of public skepticism. As a policy concern, opacity is just as bad as full-fledged fraud. Users who expect search engines to deviate from strict relevance-based results are not deceived when this, in fact, happens. If I tell you, “I recommend to you this model of a vacuum cleaner on the basis of an undisclosed mixture of considerations about your own preferences and my personal interests,” I am not deceiving you. You may regard the recommendation (and my personal character) as dubious and (rightly) feel manipulated, but you have no claim of deception.¹³⁷ Users, however, are still harmed under these

133. See Bracha & Pasquale, *supra* note 44, at 1171–79 (discussing various policy concerns applicable to search ranking manipulation); Pasquale, *supra* note 43, at 112–24 (same).

134. See *infra* text accompanying notes 155–58.

135. Ellen P. Goodman, *Stealth Marketing and Editorial Integrity*, 85 TEX. L. REV. 83, 112 (2006).

136. See Bracha & Pasquale, *supra* note 44, at 1177.

137. Thus, Grimmelmann is too quick to argue that to be a disclaimer effective at revealing the search engine’s incomplete adherence to user’s relevance “would need to

circumstances, especially when they have no idea how the results deviate from a strict relevance standard. The harm is twofold. First, users receive results that (by the search engine's own lights) are less than fully geared toward serving their interest. Second, this dynamic will likely result in more general erosion of users' trust in search results, which would be attributable to their growing expectation of manipulation.¹³⁸ Ironically, the latter harm is exacerbated when users are not deceived, but are kept in the dark in regard to the details of the manipulations to which they are subjected. There are, in short, substantial harms associated with manipulation.¹³⁹ But it is unlikely that courts, employing their narrow and guarded approach to excluded categories of speech, will be willing to interpret the category of fraud broadly as encompassing cases of manipulation through opacity not involving fraud in the strict sense.

As the likelihood of fraud dissipates with shifting public expectations, so does the impediment for applying the First Amendment. The net result is that deception-based analysis has little mitigating effect on the far-reaching use of the First Amendment. In the short run, the exclusion of deceptive speech does not save a broad array of regulations, beyond the context of search, from the incredibly broad theory of freedom of speech on which the claim for search results as protected opinions rests. In the long run, it does not even save antideception-oriented regulations of search engine ranking.

B. Coverage

The fatal flaw of the opinionated search engine construct resides on a more fundamental level of First Amendment doctrine. It is possible to read certain Supreme Court opinions as affirming an extremely expansive version of the scope of the First Amendment.¹⁴⁰ One recent example is the Supreme Court's decision in *Sorrell v. IMS Health Inc.*,¹⁴¹ commonly read as standing for the broad proposition that any information is speech protected under the First Amendment.¹⁴² Taking this proposition together

affirmatively reveal the other considerations entering into a ranking." Grimmelman, *supra* note 12, at 931. An explicit disclaimer or, alternatively, a general public awareness, under which users become aware of incomplete adherence to relevance but are kept in the dark about its details puts an end to deception in the strict sense. Manipulation may still persist in the absence of a detailed disclosure. While manipulation may be a policy concern, unlike deception, it is unlikely to be a ground for removing otherwise applicable First Amendment protection from speech.

138. See Goodman, *supra* note 135, at 113 (describing in the analogous context of stealth marketing how widespread public skepticism results in harm to public discourse because it "degrades a communications environment in which participants are unnecessarily disbelieving").

139. See Bracha & Pasquale, *supra* note 44, at 1177-79 (describing manipulation of search results as harm to users' autonomy).

140. See Benjamin, *supra* note 16, at 1455 (observing that it is striking "how broadly the Court has interpreted the scope of the Free Speech Clause, particularly in recent years, with the result that one can fairly answer most of the questions about algorithms without relying on any particular theories of the First Amendment").

141. 131 S. Ct. 2653 (2011) ("[C]reation and dissemination of information are speech within the meaning of the First Amendment.>").

142. *Id.* at 2667.

with other recent decisions that emphasize the narrow nature of excluded categories of speech,¹⁴³ one may conclude that Supreme Court jurisprudence conclusively disposes of the question of search ranking as protected speech. Yet, when these decisions are read against the broader background of First Amendment law, some aspects of which they never directly addressed, their supposed literal and conclusive resolution of the question of search engine speech dissolves. Specifically, these Supreme Court decisions did not address the issue of First Amendment coverage.

It is widely acknowledged that the First Amendment does not cover all instances of regulatory constraints on communication that falls within the case law's broad definition of expression.¹⁴⁴ In a typical recent case, the Seventh Circuit described a claim that a prison deprived a prisoner of his First Amendment rights by preventing him from ordering his broker to sell stock as "absurd"; this, explained Judge Richard Posner, "is not the kind of verbal act that the First Amendment protects."¹⁴⁵ But the prisoner's verbal order clearly constitutes a substantive message communicated to another by whom it is potentially understandable. It certainly satisfies the oft-quoted *Spence v. Washington* test for speech requiring an "intent to convey a particularized message" and likelihood "that the message would be understood by those who viewed it."¹⁴⁶ Nor does the communication fall within one of the traditional categories of excluded speech. How then could the court so easily dismiss the free speech claim as "absurd"?

The answer is simple: contrary to Professor Benjamin's assertion,¹⁴⁷ not every communication that qualifies as speech and falls outside the excluded categories is protected by the First Amendment. Scholars have long acknowledged that satisfying the definition of speech is not a sufficient condition for triggering the First Amendment.¹⁴⁸ They refer to the boundary separating abridgment of speech that triggers the First Amendment from that which does not as "coverage."¹⁴⁹ Uncovered speech is the dark matter of freedom of speech. It is everywhere in vast amounts, but it is almost never noticed.¹⁵⁰ It includes an enormous quantity of communication that falls within the definition of speech, such as speech restricted by securities regulation, speech within the ambit of regulation of

143. See cases cited *supra* notes 85–87.

144. See generally sources cited *infra* notes 149–50.

145. *King v. Fed. Bureau of Prisons*, 415 F.3d 634, 637 (7th Cir. 2005).

146. *Spence v. Washington*, 418 U.S. 405, 410–12 (1974).

147. See *supra* text accompanying notes 113–15.

148. Post, *supra* note 22, at 1252 ("[The test for speech] cannot plausibly be said to express a sufficient condition for bringing 'the First Amendment into play.'").

149. See FREDERICK SCHAUER, *FREE SPEECH: A PHILOSOPHICAL ENQUIRY* 89–92 (1982); Kent Greenawalt, *Criminal Coercion and Freedom of Speech*, 78 NW. U. L. REV. 1081, 1089–90 (1983) (discussing "[b]oundaries questions about the first amendment"); Post, *supra* note 72, at 713; Frederick Schauer, *Categories and the First Amendment: A Play in Three Acts*, 34 VAND. L. REV. 265, 267–82 (1981); see also Post, *supra* note 22; Schauer, *supra* note 20.

150. See Schauer, *supra* note 20, at 1768 ("[T]he speech with which the First Amendment deals is the exception and the speech that may routinely be regulated is the rule.").

various professionals, or speech that constitutes criminal conspiracy and solicitation.¹⁵¹

Thus, free speech jurisprudence contains two filters that prevent the triggering of First Amendment scrutiny even when regulation of communication within the definition of speech is involved. The more visible filter is that of exclusionary categories. But the second filter—that of coverage—removes from First Amendment scrutiny a vastly greater amount of speech. Frequently, this second filter remains unnoticed because it is hardly ever challenged.¹⁵² In the rare cases when a creative litigant tries to claim protection in such speech, courts summarily reject the argument with little fanfare in various ways. In one case, such an argument was simply dismissed as “absurd.”¹⁵³ At other times, courts employ various mechanisms that magically cause freedom of speech questions to disappear, such as classifying a case as being about product liability for a defective tool rather than regulation of speech.¹⁵⁴ As a result, the case law contains little elaborate reasoning or concrete guidance on how to detect or apply the boundary that separates covered from uncovered speech.

The search engine speech debate fundamentally challenges this state of affairs because it shatters the tacit consensual understanding supporting it. The opinionated search engine argument explicitly denies the existence of the coverage filter. It asserts that any communication within the definition of speech not included in the traditional exclusionary categories receives full protection. Moreover, the argument invokes strong language from recent Supreme Court decisions purportedly supporting this position. This raises the question of the existence of and the normative justification for the coverage filter. Offhanded assertions based on a tacit consensus are no longer possible.

The normative stakes of the question of coverage and of the broad speech theory behind the opinionated search engine argument are much higher than those of the immediate question of search ranking regulation. In the absence of a coverage filter, when *any* speech, including implied observations of relevance, receives full First Amendment protection, large swaths of legal regulations may become subject to the demanding standard of First Amendment review. Consider the following examples.

For a handsome sum of money, Peter provides to competitors of his employer access to the employer’s valuable secret business information that

151. *See Post, supra* note 72, at 715; Schauer, *supra* note 20, at 1777–84.

152. *See* Schauer, *supra* note 20, at 1778 (observing that to discuss uncovered speech, “we need to leave our casebooks and the Supreme Court’s docket behind” and consider “not only the speech that the First Amendment noticeably ignores, but also the speech that it ignores more quietly”).

153. *King v. Fed. Bureau of Prisons*, 415 F.3d 634, 637 (7th Cir. 2005).

154. *See Brocklesby v. United States*, 767 F.2d 1288, 1294–95 (9th Cir. 1985) (classifying an erroneous airplane navigational chart as a defective product for purposes of defective product liability law); *Saloomey v. Jeppesen & Co.*, 707 F.2d 671, 676–77 (2d Cir. 1983) (same); *see also Winter v. G.P. Putnam’s Sons*, 938 F.2d 1033, 1035–36 (9th Cir. 1991) (distinguishing a mushroom encyclopedia, which is “pure thought and expression,” from aircraft navigational charts, which are “highly technical tools”).

Peter keeps on his laptop. Specifically, Peter writes a computer program that responds to the competitors' search queries submitted to the program via the internet. When a search term corresponds to a name of one of the employer's customers, the software displays a wealth of secret information on the customer and its business relationship with the employer. When sued under trade secret law,¹⁵⁵ Peter asserts that the First Amendment bars the claim because whenever his software presents information to a user it also produces speech in the form of implied observations of relevance (i.e., that the displayed information is relevant for the user in relation to the search term).

Paul, a minimarket owner, challenges as unconstitutional under the First Amendment a new state law that regulates the shelf placement of certain children's food products, deemed unhealthy.¹⁵⁶ The law prohibits placement of the products on shelves of highest consumer visibility, those below a certain height and those located in close proximity to the registers. Paul argues that the law violates his First Amendment rights because his choices about shelf placement, based on the visibility of the product, reflect implied observations of relevance to consumer preferences of those products, observations that are potentially understandable by consumers.

Mary is sued for negligence after a computerized system she manufactures malfunctioned. The system monitors the parameters of an industrial chemical process and provides notices divided into conspicuous "high priority warnings" and less conspicuous "standard notices," where each category is displayed on a different screen. Due to a bug, the software displayed the correct information about a critically dangerous value of one of the process's parameters on the standard notices screen instead of the

155. The described facts give rise to a plausible infringement of trade secret claim against Peter, who disclosed information constituting a trade secret that he had acquired either under a duty of confidence or using improper means. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 40(b)(1)–(2) (1995); UNIF. TRADE SECRETS ACT § 1(2) (amended 1985), 14 U.L.A. 537 (2005) (defining trade secret "misappropriation").

156. See Jennifer L. Pomeranz, *Extending the Fantasy in the Supermarket: Where Unhealthy Food Promotions Meet Children and How the Government Can Intervene*, 9 IND. HEALTH L. REV. 117, 168–75 (2012) (discussing regulation of food product placement on the basis of its nutritional value). The scant case law on this issue is not very clear or consistent, but it is not hospitable to First Amendment claims in regard to product location. In *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525 (2001), the Supreme Court assumed, for purposes of its analysis of a regulation that prohibited self-serving display of tobacco products, that manufacturers have a "cognizable speech interest" in a particular means of displaying their products. *Id.* at 569–70. The Court found, however, that "Massachusetts seeks to regulate the placement of tobacco products for reasons unrelated to the communication of ideas" and upheld the regulation under a content-neutral test applied to such cases. *Id.* Other cases expressed a more skeptical view on the very applicability of the First Amendment to similar situations. See *Vill. of Hoffman Estates v. Flipside, Hoffman Estates*, 455 U.S. 489, 496 (1981) (rejecting a challenge to a regulation prohibiting the sale of drug paraphernalia in proximity to literature about illegal drugs because "insofar as any commercial speech interest is implicated . . . it is only the attenuated interest in displaying and marketing merchandise in the manner that the retailer desires"); *Philip Morris USA, Inc. v. City of S.F.*, 345 F. App'x 276, 277 (9th Cir. 2009) (finding that selling cigarettes in pharmacies is not a protected expressive activity because it "doesn't involve conduct with a 'significant expressive element.'" (quoting *Arcara v. Cloud Books, Inc.*, 478 U.S. 697, 701–02 (1986))).

“high priority warnings” one. As a result, the employee in charge of the process failed to notice the danger, stop the process in time, and prevent a destructive explosion. Mary argues that the First Amendment bars a negligence claim because her software’s decisions on which screen to display the notice contain implied observations on the degree of priority of the message, potentially understandable by users.

The point should be clear by now. Implied observations of relevance are everywhere. Almost anything that is done by people and their creations in the social and economic realms has a connotative meaning about relevance. Much of this meaning is at least as expressive as search ranking “opinions” of relevance. Such communication satisfies the broad definition of expression and it does not necessarily fall within the categories of excluded speech. The much-criticized distinction between speech and conduct is of little help in preventing the extension of First Amendment protection to substantial parts of this communication, found in every corner of social and economic life. As many commentators observe, speech and conduct is often a hopelessly slippery distinction on which to build the boundaries of the First Amendment.¹⁵⁷ The reason is twofold. First, every human communication involves some conduct. Second, and more importantly, many forms of human conduct involve some meaning, especially when we include connotative meaning. The opinionated search engine argument and the extension of its logic ad absurdum demonstrate the latter point. The meaning-bearing action in any of the three examples above does not clearly qualify as conduct any more than hyperlinked, ranked search results.¹⁵⁸ The conduct-speech distinction hardly seems the silver bullet that will allow us to treat search engine ranking as covered speech, but not the ubiquitous meaning attached to many other human actions.

Nor is the tactic known as the *O’Brien* test, which courts sometimes use in hard speech/conduct cases, of much use here.¹⁵⁹ Under this test, inaugurated in *United States v. O’Brien*,¹⁶⁰ in cases where regulated conduct closely bundles together speech and nonspeech elements, the court subjects the regulation to a special constitutional standard designated for these cases. This is an intermediary form of scrutiny—essentially the test applied today to any content-neutral regulation—midway between the exacting standard applied to content-based regulations and the lax rational-

157. See, e.g., 1 SMOLLA, *supra* note 75, § 2:52; see also C. EDWIN BAKER, HUMAN LIBERTY AND FREEDOM OF SPEECH 70–73 (1989); FRANKLYN S. HAIMAN, SPEECH AND LAW IN A FREE SOCIETY 16–40 (1981).

158. Perhaps one could distinguish arranging products on the shelf from ranking search results on the ground that the former involves the physical action of placing the products. One would still be hard pressed to explain why the distinction between physically arranging products and structuring information provides a good normative reason to distinguish the cases.

159. *United States v. O’Brien*, 391 U.S. 367 (1968); see FARBER, *supra* note 75, at 40 (discussing how the *O’Brien* test explains the fading away of the importance of the speech-conduct distinction by shifting the focus from this distinction to the question of content neutrality).

160. 391 U.S. at 367.

basis standard applied to nonspeech regulation.¹⁶¹ The trouble with the *O'Brien* escape route in our context is that one of the basic elements of the test requires that the regulation be content neutral, meaning that it must not be based on the specific expressive content of the conduct.¹⁶² In the case of search results, as well as in the myriad of analogous cases, this distinction is impossible. Action and connotative meaning are too closely bundled. Change the action and you necessarily change the meaning. Target a specific conduct and you necessarily target a specific meaning embedded in it.¹⁶³ Prohibiting a specific search ranking or a specific arrangement of products on the shelf necessarily targets specific connotative meaning about relevance associated with these actions. Consequently, *O'Brien* is of no help in stemming the flood of First Amendment scrutiny resulting from the opinionated search engine argument.

At this point, some readers may wonder what is wrong with extending the First Amendment to all meanings connoted by a vast universe of pervasive human actions. This is the point where the dark shadow of First Amendment *Lochnerism* comes into the picture. The *Lochner* era at the dawn of the twentieth century, named after *Lochner v. New York*,¹⁶⁴ is remembered as a period of aggressive attack by the courts on the ability of government to regulate economic and social life grounded in the substantive Due Process Clause of the Fourteenth Amendment.¹⁶⁵ Some commentators, who identified a broad trend in recent decades of a turn by big business to the First Amendment in order to frustrate various governmental regulations, have dubbed this trend “First Amendment *Lochnerism*.”¹⁶⁶ This turn to the First Amendment, perhaps reminiscent of the role played by the Fourteenth Amendment during the *Lochner* era, is understandable. In post–New Deal constitutional jurisprudence, the First Amendment is one of the most significant enclaves of the Court’s willingness to aggressively scrutinize and considerably limit government

161. Under this test, the regulation will be upheld “if it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.” *Id.* at 377.

162. See *Clark v. Cmty. for Creative Non-Violence*, 468 U.S. 288, 293 (1984) (noting that to pass constitutional muster the regulation must be “justified without reference to the content of the regulated speech”).

163. See *infra* text accompanying notes 244–47.

164. 108 U.S. 45 (1905).

165. See generally PAUL KENS, *LOCHNER V. NEW YORK: ECONOMIC REGULATION ON TRIAL* 154–76 (1998) (discussing the *Lochner* era); Jamal Greene, *The Anticanon*, 125 HARV. L. REV. 379, 417–22 (2011) (discussing the criticism of *Lochner* in mainstream American legal thought and revisionist efforts).

166. See generally Kenneth D. Katkin, *Symposium Introduction, First Amendment Lochnerism? Emerging Constitutional Limitations on Government Regulation of Non-speech Economic Activity*, 33 N. KY. L. REV. 365 (2006); Jedediah Purdy, *The Roberts Court v. America: How the Roberts Supreme Court Is Using the First Amendment To Craft a Radical, Free-Market Jurisprudence*, 23 DEMOCRACY: J. IDEAS 46, 52 (2012), available at http://www.democracyjournal.org/pdf/23/the_roberts_court_v_america.pdf (describing recent Supreme Court First Amendment jurisprudence as “neo-*Lochner*-ism”).

regulatory action.¹⁶⁷ A more recent development is the rise of the information economy in which much business activity is concentrated around informational resources or streams—exactly the kind of subject matter that could be potentially characterized as “speech.” Together, these two features make the First Amendment a very rich vein to be mined by business actors seeking refuge from regulation. Needless to say, positive explanations do not necessarily make a normative justification.

The opinionated search engine argument takes this process to a new level. It raises the specter of a true First Amendment *Lochnerism*: a jurisprudence in which the First Amendment, like the Fourteenth Amendment in the *Lochner* era, subjects almost any economic and social regulation to exacting constitutional scrutiny and throws its validity into doubt.¹⁶⁸ Such a development would fundamentally change the balance of post–New Deal jurisprudence based on the lax test of rational basis accompanied by limited enclaves of higher-standard scrutiny, including the limited area of application of the First Amendment.¹⁶⁹

It is highly doubtful that the recent Supreme Court opinions containing broad language on the limited nature of First Amendment exceptions contemplated this sort of opening of the floodgates or considered its monumental implications. A much more plausible reading of these opinions is to understand their ruling as limited to the first filter, that of exclusionary categories, and as saying nothing about the second one, that of coverage. Under this reading, when the Supreme Court said in *Brown v. Entertainment Merchants Ass’n* that “new categories of unprotected speech may not be added to the list” of traditional categories of excluded speech, it refused to add any content-based excluded categories or to read broadly the existing ones.¹⁷⁰ It simply did not address, however, the different issue of coverage. It would be strange if the Court intended to eliminate the longstanding, if somewhat obscure, coverage filter without a word of reasoning on the subject and without a hint of considering the far-reaching effect of such a move on the structure of constitutional review.

167. MORTON J. HORWITZ, *THE WARREN COURT AND THE PURSUIT OF JUSTICE* 58, 67 (1998) (describing the split in the post–New Deal Supreme Court over the question of increased protection to First Amendment freedoms and the ultimate triumph of the view supporting this position).

168. See Pasquale, *supra* note 43, at 118 (arguing that a broad application of the First Amendment to search engines’ speech “threatens to ‘Lochnerize’ the field”); Wu, *supra* note 24, at 1508 (“At some point a broad theory of speech would encounter the anticanonical influence of *Lochner v. New York*.”).

169. See *United States v. Carolene Prods. Co.*, 304 U.S. 144, 152 & n.4 (1938) (observing that “regulatory legislation affecting ordinary commercial transactions is not to be pronounced unconstitutional unless in the light of the facts made known or generally assumed it is of such a character as to preclude the assumption that it rests upon some rational basis”—subject to “narrower scope for operation of the presumption of constitutionality” in certain cases); see also JOHN HART ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* 76 (1980) (developing a theory that explains the structure of modern constitutional law, as expressed in *Carolene Products*, on the basis of the Court’s function of making sure that “the channels of political participation and communication are kept open”).

170. *Brown v. Entm’t Merchs. Ass’n*, 131 S. Ct. 2729, 2734 (2011).

Concluding that the Supreme Court did not eliminate the coverage filter from First Amendment jurisprudence still leaves open the hard questions triggered by the opinionated search engine argument. What is the criterion for deciding whether the First Amendment covers particular speech, and how does it apply to search ranking's implied observations of relevance?

C. Normative Framework: Freedom-of-Speech-Significant Social Practices

One may scour the case law in vain for a clear test or even guidance on the question of First Amendment coverage. In the absence of either doctrinal guidance or a tacit consensus, answers must be sought in normative analysis. Normative theories of freedom of speech are somewhat of an embarrassment. Commentators point out that no normative theory can coherently account for First Amendment jurisprudence in its entirety,¹⁷¹ and courts appear almost gleeful to ignore such theories.¹⁷² Despite this disdain, however, the only coherent way of formulating guidance on applying the coverage filter is through normative analysis.¹⁷³

There are three dominant normative theories of freedom of speech. Democratic governance theory focuses on the instrumental value of speech in facilitating the deliberative process essential for democratic politics.¹⁷⁴ The pursuit of truth theory emphasizes the importance of an open and free marketplace of ideas in furthering the exploration of truth.¹⁷⁵ Finally, autonomy theory regards speech as a fundamental part of individual liberty and as a central aspect of human self-realization.¹⁷⁶ The trouble, as Frederick Schauer explains, is that none of these three theories is able to explain the entire pattern of exclusion and inclusion of First Amendment

171. THOMAS I. EMERSON, TOWARD A GENERAL THEORY OF THE FIRST AMENDMENT, at vii (1966) (“[N]o really adequate or comprehensive theory of the First Amendment has been enunciated, much less agreed upon.”); see Robert Post, *Reconciling Theory and Doctrine in First Amendment Jurisprudence*, 88 CALIF. L. REV. 2353, 2372 (2000) (arguing that the Supreme Court has not consistently adopted any one theory of the First Amendment); Steven Shiffrin, *Dissent, Democratic Participation and First Amendment Methodology*, 97 VA. L. REV. 559, 560 (2011) (“No theory has dominated.”).

172. FARBER, *supra* note 75, at 6 (noting that single value theories of First Amendment law “were almost entirely ignored by the courts”).

173. See Post, *supra* note 72, at 716.

174. See generally ALEXANDER MEIKLEJOHN, FREE SPEECH AND ITS RELATION TO SELF-GOVERNMENT (1948); ROBERT C. POST, CONSTITUTIONAL DOMAINS: DEMOCRACY, COMMUNITY, MANAGEMENT 119–78 (1995); James Weinstein, *Participatory Democracy As the Central Value of American Free Speech Doctrine*, 97 VA. L. REV. 491 (2011).

175. The metaphor of the marketplace of ideas is usually traced back to Justice Holmes’s dissent in *Abrams v. United States*, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting). On the pursuit of truth theory, see SCHAUER, *supra* note 149, at 6, and William P. Marshall, *In Defense of the Search for Truth As a First Amendment Justification*, 30 GA. L. REV. 1 (1995).

176. See generally BAKER, *supra* note 157, at 194–224; SCHAUER, *supra* note 149, at 68–70; Thomas E. Emerson, *Toward a General Theory of the First Amendment*, 72 YALE L.J. 877 (1963); Martin H. Redish, *The Value of Free Speech*, 130 U. PA. L. REV. 591 (1982).

coverage.¹⁷⁷ Schauer's response seems to be giving up altogether on normative explanations of coverage and switching to a positive account instead.¹⁷⁸

Robert Post offers a way out of this apparent dead end. The normative underpinnings of coverage rules, Post explains, cannot be understood by reference to abstract and broad categories of speech detached from specific social context.¹⁷⁹ Flag burning, computer code, or sentences written on paper, do not have a general and constant normative significance. Their normative significance only arises within the rich details of the specific social practices in which they are embedded.¹⁸⁰ The same written sentence carries a different normative weight when produced as part of a client's sale order to a broker and when displayed on a street protest sign. Computer code may have little normative significance related to freedom of speech when merely fed to a computer that executes its instructions compared to when it is published in a computer science journal or blog. In short, speech and its regulation can only be normatively evaluated in the context of the specific social practices in which the speech is embedded. It follows that the coverage filter should not be understood as applying to abstract categories of speech. Exclusion from the coverage of the First Amendment is based not on an abstract classification of the speech but on a normative judgment that a specific speech practice targeted by a regulation at issue is not relevant for First Amendment values.¹⁸¹ This approach provides a normative criterion for coverage: a particular regulation targeting a specific practice is outside the coverage of the First Amendment when the speech practice, understood in light of the specifics of the social interactions involved, has little or no significance for freedom of speech values.

Grounding First Amendment coverage in concrete social practices explains why no single normative theory is successful in explaining its pattern. Rather than embodying a single monolithic value, various speech practices implicate different values.¹⁸² Some practices may embody mainly the value of democratic governance; others the value of truth seeking; and yet others a mix of several free speech values. Some social practices, although involving speech in the technical sense, do not significantly involve *any* relevant free speech value. It follows, then, that the First Amendment covers a particular regulation when the specific social practice it adversely affects is more than trivially relevant for *any* plausible free speech value. Thus, for example, it seems that, *prima facie*, the prisoner's sale instructions to his broker fail the coverage test. While the prisoner's expression is technically speech (which may be covered in other social

177. Schauer, *supra* note 20, at 1785 (“[N]one of the existing normative accounts appears to explain descriptively much of, let alone most of, the First Amendment’s existing inclusions and exclusions.”).

178. *Id.* at 1788–1807.

179. Post, *supra* note 22, at 1273 (“The unit of First Amendment analysis . . . ought not to be speech, but rather particular forms of social structure.”).

180. *Id.* at 1255.

181. *Id.*; *see also* Post, *supra* note 72, at 716.

182. Post, *supra* note 22, at 1271–72.

contexts), the specific social practice involved seems of little relevance to any of the dominant three normative theories of freedom of speech, or, indeed, to any other alternative theory.

D. *The Social Practice of Search Ranking*

How does this normative framework apply to search ranking? Observations on the relative relevance of websites for users' specific preferences are not speech excluded from First Amendment coverage in the abstract. Rather, the specific speech practices of search engines affected by the kind of regulations considered in this Article must be evaluated. An analysis based on this proper focus yields a clear conclusion: the specific speech practices of connotative observations of relevance embodied in search results are hardly of normative relevance from the perspective of any of the common normative theories of freedom of speech.

Consider first the search for truth theory. In the abstract, search rankings contain propositions whose veracity could be affirmed or refuted.¹⁸³ Google may be right or wrong in observing that I prioritize a group of websites in a certain way in relation to a particular search term.¹⁸⁴ The reason why search rankings are of little normative significance is not the content of the speech, but rather the nature of the speech practices involved. The social practice through which the speech is carried out has nothing to do with conventional social practices and procedures associated with the investigation of truth as a valuable social enterprise. As Post puts it, "Truth-seeking is not merely a matter of sentences and propositions; it also involves habits of mind, priorities of reason, intersubjective orientations, and attitudes that, when taken together, make up what we recognize to be rational exchange or collective search for knowledge."¹⁸⁵ We can refer to these conventional practices as "inquisitorial practices," namely social speech practices that have a reasonable, substantial connection to the examination, validation, or refutation of the truth value of propositions. Google publishing an article or a blog post in which it makes certain claims about the preferences of certain groups of users or even disseminating a compendium of raw information about the subject could plausibly be seen as inquisitorial speech practices. But the inquisitorial aspect of propositions implied in search rankings is too incidental and trivial to have any significant normative value. In this respect, the scenario is analogous to the prisoner instructing his broker to sell stock.¹⁸⁶ The speech in this example

183. See Grimmelmann, *supra* note 12, at 916 (arguing that search results are "descriptive opinions about relevance").

184. Arguably, search rankings embody another category of propositions with a truth value: propositions about what the search engine thinks the user's priorities are. Taking these propositions as the focus of the search-for-truth argument, however, reduces it to a triviality. Almost any social action involves a self-referential, implied proposition about the beliefs and dispositions of the actor. Arguing that any such action should be protected by the First Amendment because of its value for the search for truth seems to justify too much and therefore nothing.

185. Post, *supra* note 22, at 1272.

186. See *supra* text accompanying notes 145–46.

contains implied propositions having a truth value, such as observations about the prisoner's preferences and possibly even his views about the expected performance of certain stock. An attempt by the prisoner to publish an essay on the subject, and perhaps even a pamphlet with recommendations to investors, would be an inquisitorial practice relevant for the value of truth seeking, but the broker instruction is not. In this case, as in the case of search ranking, the connection to conventional social practices reasonably related to the search of truth is too remote and precarious to be of normative significance.

A similar analysis applies to the application of democratic governance theory. In the proper context arguments, views and even raw information about preferences of users can be part of a deliberative democratic process. But the specific social practice of search ranking is not directly part of social practices relevant for democratic self-governance. Democratic governance is not "merely a matter of talking,"¹⁸⁷ but involves a specific set of social interactions in which citizens engage each other through *dialogical* speech. A dialogical practice is a specific form of interaction by which humans govern themselves collectively through argumentation, persuasion, deliberation, and debate.¹⁸⁸ The speaker and user interaction in regard to search ranking is not dialogical or deliberative. No one reads search results to be informed of Google's views of users' preferences. More importantly, users do not potentially interact with search ranking dialogically. One may find different rankings more or less useful for her purposes. But one is not persuaded or unconvinced by a search ranking. One does not consider the arguments of search rankings, examine her opinions against them, or write a critique of them. The heart of the matter is, again, the nature of the social practice involved. A map could be speech that is normatively significant for democratic values when embedded in a relevant social practice, such as a pamphlet or a civic group's emblem. The very same map carries no normative significance when sold and used as a navigational aid.¹⁸⁹ The social practice of observations of relevance contained in search results is much like the latter. It is not sufficiently connected to any deliberative or dialogical speech practice that could be plausibly associated with the democratic process, even broadly construed.

Individual autonomy is probably where the normative insignificance of the social practice of search ranking is most obvious. Several threshold issues cast serious doubt on the relevance of this normative outlook for search ranking. Consider first the nature of the postulated speaker: a business corporation engaged in a commercial activity. Whose individual autonomy is promoted by the speech imputed to Google or Microsoft? The connection between the speech embodied in search ranking and the autonomy interest of any of the multitude of actual individuals represented

187. Post, *supra* note 22, at 1272.

188. *Id.* at 1254; *see also* Post, *supra* note 72, at 720.

189. *See* Post, *supra* note 22, at 1254 (explaining that navigation charts do not receive First Amendment protection because we interpret them as "speaking monologically to their audience").

by the corporate personality fiction is far from clear.¹⁹⁰ It has long been settled that the First Amendment protects business corporations,¹⁹¹ but to make a specific normative argument for the extension of free speech protection explicitly based on the supposed personal autonomy interest of a business corporation still seems like a stretch.

Consider next the identity of the speaker in the case of search ranking, its corporate status aside. Who exactly is the “author” of the implied observations of relevance embodied in search ranking? Proponents of search engine speech seem to tacitly rely on a mechanical agency theory. Specific search rankings are produced by a computer program incorporating a complex algorithm. The output of the algorithm may be imputed to its human creators, whose own actions may be imputed, in turn, to their corporate employer. In this construct, the algorithm is a tool, much like a painter’s brush or a writer’s word processor. The speaker is the human agent who designed and used the tool to produce a certain result.¹⁹² The difficulty with search ranking, in the age of personal search, is that the specific result or speech is produced through an interaction between the carefully designed tool (the algorithm) and a rich set of personal user data that is not produced or controlled by the designer of the tool.¹⁹³ The substantial part that data plays in shaping the final result undermines the alleged unbroken connection between the designer of the tool and the outcome it claims as an expression of its personal autonomy. Consider the analogy of an intricate musical instrument whose tubes and valves are carefully designed by its creator to respond to air temperature and movement, thereby producing predetermined sounds. After being placed in the open, the instrument reacts to changing random natural conditions and produces a complex tune. Can the designer of the instrument be plausibly seen as the author of the tune? More importantly, should the tune, as opposed to the design of the instrument, be seen as an expression of the designer’s autonomy? The answer to these questions is not self-evident.

Whatever the merit of those threshold doubts, the main reason why search rankings carry no normative weight from the perspective of individual autonomy is much the same as in the case of the other theories. Even bracketing the corporate status of the speaker and its doubtful claim for authorship, the specific speech practice involved is of little relevance to the values of individual autonomy and self-realization. The expression implicit in search results hardly seems an act of individual self-realization

190. See BAKER, *supra* note 157, at 201–02 (arguing that the speech of a business enterprise in a commercial context cannot be attributed to the personal beliefs of its owners or employees).

191. See *First Nat’l Bank of Bos. v. Bellotti*, 435 U.S. 765 (1978).

192. Benjamin, *supra* note 16, at 1465–67 (discussing various examples where speech produced by automated algorithmic process is attributed to the person who designed the process).

193. Goldman, *supra* note 99, at 198 (describing the shift toward personalized ranking algorithms that produce different results on the basis of user-specific data); Grimmelmann, *supra* note 12, at 877 (describing how search results are generated “based on hundreds of signals”).

or an assertion of the speaker's identity. The expression is merely a side effect, an incident of a functional apparatus whose main purpose is to promote the search engine's commercial interest by providing a useful service for users.¹⁹⁴ Again, the crux of the matter is not the abstract content of the speech, but the specifics of the social practice in which it is embedded.

Expression consisting of ranking content, even when it is of service to users, could be germane for the speaker's autonomy and identity. Consider, for example, a ranked list of website recommendations on a particular topic, created by a human author that includes elaborate evaluation and personal impressions of each website. In this example, the speech strongly connects to the speaker's affirmation of self-identity and choice, as well as the realization of her rational faculties through expression. There is a continuum of speech practices leading from such contexts that strongly implicate autonomy values to others where the connection between speech and affirmation of individual freedom and personality is weaker. Search ranking is located close to the extreme end of this continuum, where any such connection is negligible at best.

To be sure, in some abstract sense, search rankings involve autonomy. They embody someone's choices (mediated through algorithm and data) on what to include and how to rank websites in response to users' queries. But in this broad and loose sense, any volitional human activity involves autonomy. What matters for free speech autonomy theory is not autonomy in the abstract, but rather *expressive autonomy*. Autonomy as a normative ground for freedom of speech identifies speech as a unique realm where there is a particularly strong and close connection between individual subjective choices or identities and their manifestation in the world.¹⁹⁵ This specific connection between expression, self-identity, and self-realization justifies special protection from governmental intervention, beyond that given on general autonomy grounds.¹⁹⁶ Specific social practices where speech does not hold this intimate connection to individual identity and subjectivity carry no normative significance from the point of view of the autonomy framework that justifies special protection to speech on account of its unique connection to individual self-realization.

Recall that it is not the general content of the speech that makes it normatively insignificant.¹⁹⁷ Nor does the mere fact that it was produced with the aid of a computer algorithm render the speech normatively

194. See *Company Overview*, GOOGLE, <http://www.google.com/about/company/> (last visited Feb. 24, 2014) ("Google's mission is to organize the world's information and make it universally accessible and useful.").

195. C. Edwin Baker, *Scope of the First Amendment*, 25 UCLA L. REV. 964, 993 (1978) ("[T]he [F]irst [A]mendment values of *self-fulfillment* and *popular participation* in change emphasize the *source* of the speech in the self, and make the choice of the speech by the self the crucial factor in justifying protection.").

196. See SCHAUER, *supra* note 149, at 8 ("[A] Free Speech Principle [means that] a limitation of speech requires a stronger justification, or establishes a higher threshold, for limitations of speech than for limitations of other forms of conduct.").

197. See *supra* text accompanying notes 179–81.

insignificant. Rather, the free speech analysis is driven by the full specific context of the social practice in which the relevant speech is embedded. When analyzed from this perspective, implied observations of relevance embodied in a search engine ranking have no normative significance from the point of view of each of the three dominant normative theories of freedom of speech. Someone is yet to suggest an alternative normative ground explaining why the First Amendment should cover search rankings as understood in the context of their relevant social practices.

E. Objections

There are several possible objections to the conclusion that the speech embodied in search engine ranking is not covered by the First Amendment because it involves no normatively significant speech practices. The first objection is that the First Amendment applies to any regulation that targets a specific viewpoint, irrespective of the presence of any protected speech. The second objection is that typically users' experience with search results is interactive or even conversational, and that as a result the opinions embodied in search ranking are part of a dialogical speech practice. The third and last objection is that search ranking, even if not itself a normatively significant speech practice, has instrumental effects on other social practices that are highly relevant for freedom of speech values. Each of these ostensibly weighty objections dissolves on closer examination.

1. Viewpoint Discrimination

A possible objection to the foregoing analysis is that it is unduly focused on the character of search engine speech. The conclusion that a search ranking is uncovered speech is based on the premise that the speech practices of ranking do not realize free speech values. First Amendment coverage is not limited, however, to cases involving speech recognized as such under the broad doctrinal definition. In some cases, the First Amendment may apply even when the relevant speech falls within one of the traditional categories of excluded speech or, according to at least one commentator, even when no speech at all is present.¹⁹⁸ Thus, in *R.A.V. v. City of St. Paul*,¹⁹⁹ the Supreme Court invalidated an ordinance that criminalized hate speech by punishing communicative behavior "which one knows or has reasonable grounds to know arouses anger, alarm or resentment in others on the basis of race, color, creed, religion or gender."²⁰⁰ The Court reached this conclusion despite the fact that the ordinance was restricted to "fighting words"—one of the traditional categories of excluded speech.²⁰¹ The Court reasoned that the regulation

198. See Post, *supra* note 22, at 1259 (arguing that evaluation of regulation aimed at targeting a specific viewpoint "ought not to depend upon whether the actions of a particular defendant are communicative in nature").

199. 505 U.S. 377 (1992).

200. *Id.* at 380, 391.

201. See *Chaplinsky v. New Hampshire*, 315 U.S. 568, 571–72 (1942).

targeted only hate speech embodying a particular viewpoint, thereby violating the principle that “government may not regulate use based on hostility—or favoritism—towards the underlying message expressed.”²⁰² Scholars have described this principle as a general ban on governmental viewpoint discrimination or content-based censorial motivation.²⁰³ Under this principle, the First Amendment is triggered whenever the government attempts to suppress a specific viewpoint, whether or not the regulated act is recognized as nonexcluded speech for purposes of the First Amendment.²⁰⁴ Applying this principle, one could argue that the regulation of search ranking necessarily targets specific viewpoints (i.e., certain implied observations of relevance) on the basis of their content, and therefore triggers the First Amendment, irrespective of the presence of covered speech.

This objection falls flat because coverage grounded in the regulation’s targeting of a specific viewpoint is subject to the same analysis as coverage based on the presence of speech. Just as the existence of speech is not a sufficient condition for triggering the First Amendment, so too is the existence of a governmental purpose of targeting specific content. The same logic applies to both alternatives. Applying the First Amendment to any regulation that could be described in the abstract as targeting specific content would be inconsistent with either existing doctrine or any normative justification of freedom of speech. Specific content or even viewpoint is implicit in countless social activities. When trade secrets law prohibits the disclosure of certain information (that which is secret and of value to its owner), but not other information, it targets specific content.²⁰⁵ When criminal law prohibits the sale of certain controlled substances, it targets specific implied representations by sellers on relevance for buyers’ preferences on the basis of point of view. If it covered any regulation that could be formally described as targeting specific viewpoints, the First Amendment would be omnipresent. Fortunately, that is not the case. Just like the mere existence of communicated meaning (i.e., speech), the formal feature of a regulation as targeting specific content by itself is an insufficient condition for triggering the First Amendment. The *R.A.V.*

202. *R.A.V.*, 505 U.S. at 386.

203. See Elena Kagan, *Private Speech, Public Purpose: The Role of Governmental Motive in First Amendment Doctrine*, 63 U. CHI. L. REV. 413 (1996); Post, *supra* note 22, at 1255; Wu, *supra* note 24, at 1514.

204. See Post, *supra* note 22, at 1255 (“First Amendment Jurisprudence is concerned not merely with *what* is being regulated, but also with *why* the state seeks to impose regulations.”); Wu, *supra* note 24, at 1514 (“Even if the communication in question would not otherwise be considered speech, a demonstrated censorial motive on the part of the government can trigger First Amendment analysis anyhow.”).

205. See UNIF. TRADE SECRETS ACT § 1(4) (amended 1985), 9 U.L.A. 538 (2005) (defining protected “trade secret” as information that “(i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy”).

majority opinion expressed this principle by limiting its holding to cases when a “realistic possibility that official suppression of ideas is afoot.”²⁰⁶

The need to differentiate between content-based regulations covered by the First Amendment and those that are not leads back to the analysis offered above.²⁰⁷ The only currently available satisfactory way of drawing such a distinction is assessing whether a formally content-based regulation of a specific social practice interferes with the realization of First Amendment values. For the reasons already explained, search ranking is not a social practice that directly realizes First Amendment values.²⁰⁸ Switching the ground from describing ranking as speech to presenting it as an activity whose regulation targets a specific viewpoint does not change the outcome of the analysis. The burden remains on search engine speech proponents to show how the regulatory intervention with this social practice is relevant for any normative account of free speech.

2. Search As a Dialogical Speech Practice

One may further object that the speech practices associated with search ranking are, in fact, dialogical. Some searches are “navigational” in nature.²⁰⁹ In those cases, the user is focused on a well-defined, predetermined object for her search (say, locating the office number of a colleague) and uses the search engine in a straightforward, mechanical way to achieve this goal. These cases are the equivalent of looking for someone’s phone number in a telephone directory. Other searches, however, are much more open ended, and the interaction with the search engine could be described as conversational. I may start my search with a general key term, be presented by the search engine with prioritized results or alternative search terms, and revise my search term in response to this information. This process may be reiterated numerous times. Within the course of this interactive process, the user may refine or change not just his original search terms but also the goals of the search and perhaps even his views or preferences. One may start the search process looking for information on “global warming,” having just a vague, general idea of a desire for more information on the subject, and end up looking for and accessing the recruitment website of a specific activism group in this area. Is not interaction of this sort a dialogical practice?

Furthermore, the effects of such conversational interactions with search engines may be shaped in systematic ways.²¹⁰ For example, alternative

206. *R.A.V.*, 505 U.S. at 390. As an example of a formally content-based regulation that does not raise such a concern, Justice Antonin Scalia cited the hypothetical case of a state “prohibiting only those obscene motion pictures with blue-eyed actresses.” *Id.*

207. *See supra* text accompanying notes 179–81.

208. *See supra* text accompanying notes 182–95.

209. *See generally* Andrei Broder, *A Taxonomy of Web Search*, 36 ACM SIGIR F. (2002), available at <http://www.acm.org/sigs/sigir/forum/F2002/broder.pdf> (classifying searches into navigational, informational, and transactional).

210. Introna & Nissenbaum, *supra* note 56, at 171 (expressing concern over the ways in which the technological design of search engines determines “systematic inclusions and exclusions”).

designs of the search algorithm may steer different shares of users, who started their search with the term “global warming,” toward very different kinds of websites within this broad field. These systematic effects may be “political” in the sense of channeling users toward exposure or nonexposure to particular kinds of information with different impacts on views and actions.²¹¹ Perhaps these systematic effects are even intentional, in the sense that the algorithm’s designers are deliberately structuring it to channel users into certain substantively preferred patterns. Search engines have understandably avoided describing themselves as embedding their own substantive preferences in their algorithm. When Google abandoned its self-cultivated public image as a neutral tool for objectively representing information, it carefully replaced it with the concept of search ranking as subjective opinions on relevance for *users’* preferences, not with the notion of search ranking as a tool for instilling in users the search engine’s own substantive preferences.²¹² Fears of search engines purposefully designing the interactive search process to serve their own substantive preferences is one of the main motivations of proponents of search engine regulation.²¹³ Search engines, therefore, have no interest in portraying themselves in this fashion in public debate. In the context of free speech, however, the idea of the search process as promoting the search engine’s own substantive agenda may play a different role. If much of the interaction of users with search results is not only conversational but also informed by the search engine’s own substantive views or preferences, isn’t this an obvious case of a dialogical social practice? And, if search is a dialogical social practice, then search ranking is part of a speech practice that embodies free speech values and must be covered by the First Amendment.

This objection fails because, while search is often interactive, adaptive, and perhaps even informed by the search engine’s substantive agenda, it is not dialogical in the sense relevant for freedom of speech values. To understand the difference, consider the following hypothetical analogy. Imagine that Captain Jean-Luc Picard (from *Star Trek*) asks the replicator (a machine capable of creating physical objects) for a “cake.”²¹⁴ Fifteen samples of cakes materialize with names and descriptions. After looking at

211. *See id.* at 181 (“[S]earch-engine design is not only a technical matter but also a political one.”). For the classic argument about the political stakes in technological design, see Langdon Winner, *Do Artifacts Have Politics?*, 109 DAEDALUS 121 (1980).

212. *See Metz, supra* note 125 (discussing Google’s shift toward describing its search ranking as opinions on relevance for users); *see also* Search King, Inc. v. Google Tech., Inc., No. CIV-02-1457-M, 2003 U.S. Dist. LEXIS 27193, at *11 (W.D. Okla. May 27, 2003) (adopting Google’s argument that its rankings are “opinions of the significance of particular web sites as they correspond to a search query”).

213. Craig Timberg, *Could Google Pick the Next President?*, WASH. POST, Mar. 31, 2013, at B4; *see also* Robert Epstein & Ronald E. Robertson, *Democracy at Risk: Manipulating Search Rankings Can Shift Voters’ Preferences Substantially Without Their Awareness* (May 2013) (unpublished manuscript), available at http://aibr.org/downloads/EPSTEIN_and_Robertson_2013-Democracy_at_Risk-APS-summary-5-13.pdf.

214. Wikipedia helpfully explains that, in *Star Trek*, a “replicator” is “a machine capable of creating (and recycling) objects.” *See Replicator* (Star Trek), WIKIPEDIA, http://en.wikipedia.org/wiki/Replicator_%28Star_Trek%29 (last accessed Feb. 24, 2014).

the cakes, Picard says, “Chocolate cake.” Ten different varieties of chocolate cake appear. The process goes through several additional iterations. By the end of the process, Picard ends up with a specific brand of chocolate cake, having not just refined his choice but also adjusted his views and preferences about cakes. The process described is interactive and adaptive, but it is not dialogical. A dialogue, for purposes of democratic free speech theory, means a group of conventional speech practices through which people collectively govern themselves involving debate, argumentation, persuasion, articulation and examination of views, or similar activities.²¹⁵ Shaping the views of others through an interactive process of manipulation, not involving any of these conventional practices or others similar to them, is not dialogical and is not given a privileged status by democratic self-governance theory.

This conclusion will remain unchanged even if the interactive process is designed with specific substantive goals or an agenda in mind. The fact that the builder of the replicator purposefully designed the machine’s responses to steer users toward particular brands of cakes, and away from others, does not make the interaction with the replicator dialogical, as long as the relevant speech practices are not part of it. Nor does it matter if the means through which the interactive process unfolds constitute speech in the technical sense. Assume that, instead of sample cakes, the replicator in our example responds to each command by replicating a list of written instructions directing the user to the physical location in the galley of Picard’s starship, the *Enterprise*, where the cake samples are located. The technical means through which the interactive process is carried out are now speech, but the speech practices are still not dialogical because they involve none of the conventional practices relevant for democratic theory.

The logic of the hypothetical example applies with equal force to search practices. No doubt, the search process often uses speech in interactive and adaptive ways. The process may even shape the preferences and views of users. It is even possible that, in some cases, these shaping effects are attributable to substantive preferences of the designer embedded in the search algorithm’s design. All of this, however, does not transform search into a dialogical practice. As long as the conventional deliberative practices of collective self-governance through dialogue relevant for democratic theory are absent, search remains a nondialogical social practice outside the coverage of the First Amendment.

3. Instrumental Value

One final objection is that, although the observations of relevance in ranking may not themselves be normatively significant practices, they facilitate other practices that are. Search engine ranking—and potential regulative constraints—greatly influence the ability of many speakers to speak effectively and of many users to access speech and interact with it as part of social practices that are at the heart of each of the three normative

215. Post, *supra* note 72, at 720.

theories of freedom of speech. Undoubtedly, a regulation that makes it significantly harder for a user to locate a suitable online forum for debating the merits of healthcare reform or frustrates the ability of a website owner to get effective exposure of her theory of global warming adversely affects social practices that realize free speech values. The effect of search engine regulation on websites' and users' speech practices, attributable to the instrumental value of search engines for these practices, places such regulation squarely within the purview of the First Amendment.

While valid, this argument has no effect on the conclusion that search ranking *as such* is not within the coverage of the First Amendment. The crucial point is that the relevant speech practices and the focus of the legal analysis are not the observations embedded in search ranking, but rather the speech interests of websites and users that may be instrumentally affected by ranking practices. Search ranking regulations may be covered by the First Amendment in the same way that the regulation of movie projectors, paper, or TV sets may be. All of these practices are covered to the extent they instrumentally affect other speech practices that are normatively significant.²¹⁶ Regulation of the technical design of TV sets may be covered not because the design is speech or because the regulation is content based in regard to the design, but rather because it may affect normatively relevant speech practices facilitated by TV sets. The same applies to search ranking. This logic leads back, of course, to First Amendment review of search-ranking regulation driven by the interests of search engine constituencies explained above.²¹⁷

Whether search ranking is covered as such, or only because of its instrumental value for other free-speech-significant practices, is of great importance. Some regulations may clearly adversely affect search engine constituencies' speech practices. A law that prohibits search engines from listing websites identified as including material about communism, scientology, or sexuality adversely affects normatively significant speech practices of users and website owners. Moreover, such a law regulates in a way that is viewpoint based vis-à-vis these practices. Other regulations may adversely affect such normatively significant speech practices despite being content neutral in regard to them. The likely destructive effect that a regulation that orders the randomization of search results would have on the efficacy of a search probably places the regulation in this category.²¹⁸ The same may be true of a regulation that orders complete transparency of the search algorithm because such transparency is likely to empower gaming of the search process and lead to its corruption.²¹⁹ But other regulations fare much better when analyzed from the perspective of the speech practices of the search engine's constituencies. Consider a legal norm that prohibits a

216. *See id.* at 721–22 (discussing the application of the First Amendment due to instrumental effects on media relevant for free speech values).

217. *See supra* text accompanying notes 54–79.

218. *See supra* text accompanying notes 78–79.

219. *See* Bracha & Pasquale, *supra* note 44, at 1201–02 (discussing search engines' legitimate interest in secrecy).

search engine from downgrading the ranking of a website because it does not participate in a commercial program run by the search engine, such as Google's AdSense program.²²⁰ Seen as a regulation of Google's speech embodied in search ranking, this is a content-based regulation that has little chance of surviving scrutiny. Analyzed from the perspective of search engine constituencies' speech practices, however, the regulation is content neutral and is very likely to be found valid. It makes all the difference whether a regulation is scrutinized as an abridgment of search ranking speech or because of its instrumental effect on the speech of search engine constituencies.

III. SPEECH AND FUNCTION

To recap the argument so far: The existence of speech is not a sufficient condition for triggering First Amendment scrutiny. To be covered by the First Amendment, the regulated specific speech practice has to be more than trivially related to free speech values. And, the social practice of search ranking does not satisfy this condition and therefore it is not covered.

The sort of freewheeling normative analysis on which this conclusion is based may make some uneasy if offered as a model for courts' handling of novel claims for First Amendment protection of the kind presented by search engine speech. Are judges to engage on an ad hoc basis in an open-ended policy evaluation of the normative significance of the speech practices involved? To some extent, this is exactly what judges are already implicitly doing whenever they assume that the First Amendment does not cover a specific speech practice. Still, the kind of explicit normative analysis necessitated by the dispute over search ranking and other machine-generated speech may seem to some to be too unconstrained. As the Supreme Court recently reiterated, First Amendment jurisprudence is strongly averse to grant either government, or the courts, a plenary power to deny First Amendment protection to speech on the basis of their evaluation of its social value.²²¹ Examining whether a specific speech practice has sufficient connection to any free speech values is not the same as evaluating the social value of speech on the basis of its content. Yet, some may see unlimited discretion to engage in the former as treading too close to the latter. But if the coverage filter is to exist at all, courts need some method for deciding controversial cases such as the one presented by the search engine speech argument.

A partial remedy for this dilemma is to adopt a strategy, typical of First Amendment jurisprudence, known as the categorical approach.²²² Rather

220. Google's AdSense is an advertising model in which websites display targeted advertisements administered by Google and share the revenue with it. *See AdSense*, GOOGLE, <https://www.google.com/adsense> (last visited Feb. 24, 2014).

221. *See United States v. Stevens*, 559 U.S. 460, 470 (2010) (describing as "startling and dangerous" a free-floating test for First Amendment coverage based on balancing the value of the speech against its social cost).

222. *See generally* SCHAUER, *supra* note 149; Wu, *supra* note 24, at 1509 (observing that the categorical approach is "easier to criticize than improve upon"). For a critical account of

than engaging in a completely ad hoc inquiry into the merits of every speech practice relevant for each case, courts can apply general proxy categories of uncovered speech practices. One such category, highly relevant for search engine speech and for cases of machine-generated speech more broadly, is that of functional speech practices.

A. *The Latent Functionality Doctrine*

Tim Wu has recently identified a de facto functionality doctrine in First Amendment law.²²³ He also described this doctrine as “mysterious.”²²⁴ This is an understatement. In its current state, functionality is hardly a doctrine at all. At most it is a latent, elusive principle whose status is akin to the privacy principle at the time when it was “discovered” by Warren and Brandeis as underlying various common law rules.²²⁵ Nevertheless, the principle is there. Articulating and refining it as an explicit legal doctrine could be the key for handling the hard coverage decisions that courts are likely to face in the age of machine speech.

The gist of the proposed functionality principle is that the First Amendment does not cover a particular speech practice if its predominant purpose and nature focus on some functional end, and any nonfunctional aspects of the speech practice in the relevant context are not more than trivial. This category does not encompass all uncovered speech. It is a stretch to call the defacement of property, and perhaps even an inside trading tip, functional in this sense. But the category does capture a significant amount of speech involving hard coverage questions, especially in cases of machine-generated speech.

The functionality category applies to the specific speech practice rather than to speech in the abstract. Computer code is a good example. One of the foundational First Amendment decisions involving computer code is *Junger v. Daley*.²²⁶ The case involved a facial challenge to a regulation prohibiting the exportation of encryption computer code.²²⁷ The district court rejected the argument that the regulation violated the First Amendment by abridging speech embodied in computer code.²²⁸ It based this conclusion on the premise that “source code is by design functional” because “it is created . . . to do a specified task, not to communicate ideas.”²²⁹ The Sixth Circuit reversed, ruling that code is protected by the First Amendment because it “is an expressive means for the exchange of

the categorical approach, see 1 SMOLLA, *supra* note 75, § 12:9, and Pierre J. Schlag, *An Attack on Categorical Approaches to Freedom of Speech*, 30 UCLA L. REV. 671 (1983).

223. Wu, *supra* note 24, at 1517 (“[C]ourts already maintain an informal exclusion based on functional considerations.”).

224. *Id.* at 1533.

225. See Samuel D. Warren & Louis Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193 (1890).

226. 209 F.3d 481 (6th Cir. 2000).

227. *Id.* at 483–84.

228. *Junger v. Daley*, 8 F. Supp. 2d 708, 712 (N.D. Ohio 1998), *rev’d*, 209 F.3d at 481.

229. *Id.* at 717.

information and ideas about computer programming.”²³⁰ Finding that the functional capacity of code should not preclude constitutional protection, the court held that “the appropriate consideration of the medium’s functional capacity is in the analysis of permitted government regulation.”²³¹

The Sixth Circuit’s reasoning in *Junger* maps well on to the structure of a functionality principle. Computer code in general is not an uncovered category of speech. The specific social practices entangled with code vary greatly. Some of these practices, such as installing or running software on a computer, are clearly functional and do not directly realize First Amendment values.²³² Other code-related practices, such as publication in an academic journal or the internet publication of code as part of course materials at issue in *Junger*, clearly realize First Amendment values. As explained by Robert Post, whether a particular regulation of code is covered depends on the speech practices it affects.²³³ To the extent the regulation is narrowly drafted to only capture functional code practices, it does not affect covered speech.²³⁴ By contrast, if the regulation captures nonfunctional speech practices, it affects covered speech and must be reviewed under the appropriate First Amendment standard, depending on whether its effect on such practices is content based or content neutral.

Finally, even if the regulation is limited to functional speech practices, its incidental effect on other freedom of speech relevant social practices must be considered. Thus, for example, if the regulation of encryption code negatively affects the ability of people to use computer technology in order to disseminate anonymous electronic speech (for example, through blogs or discussion groups), it will be subjected to First Amendment review. The focus of this form of review, however, will be the incidentally affected speech practice, not the effect on the speech embodied in encryption code.²³⁵

The closest the courts came to articulating a functionality category of uncovered speech was another code-related case: *Universal City Studios Inc. v. Corley*.²³⁶ The defendant in the case—Corley—was enjoined from posting on his website and knowingly linking to decryption computer code known as DeCSS, used to bypass CSS (Content Scrambling System), the industry’s DVD access control measure.²³⁷ These actions were alleged to

230. *Junger*, 209 F.3d at 485.

231. *Id.* at 484.

232. See generally Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2320 (1994) (describing software as “a machine whose medium of construction happens to be text”).

233. See Post, *supra* note 72, at 718–20.

234. In *Junger*, the government’s somewhat crude attempt to use this distinction failed because the limiting criterion of the regulation did not restrict its effect to functional practices. Limiting the regulation to encryption code published in electronic form still included many nonfunctional practices such as an academic publication of code in an electronic journal. See *id.* at 720.

235. See *supra* text accompanying notes 75–77.

236. 273 F.3d 429 (2d Cir. 2001).

237. *Id.* at 437.

violate the Digital Millennium Copyright Act (DMCA) prohibition on trafficking in technology for the circumvention of technological measures controlling access to copyrighted works.²³⁸ Relying on *Junger*, Corley argued that the DMCA violated the First Amendment by restricting the dissemination of certain computer code.²³⁹ In analyzing this argument the Second Circuit, upholding the trial court, recognized the complex nature of computer code. Following *Junger*, the court ruled that “[c]ommunication does not lose constitutional protection as ‘speech’ simply because it is expressed in the language of computer code,”²⁴⁰ and that computer code “can merit First Amendment protection.”²⁴¹ Rather than concluding its analysis at this point, however, the court went on to consider the significant functional aspect of computer code and found that “[t]he functionality of computer code properly affects the scope of its First Amendment protection.”²⁴² The court’s strategy for handling this duality of computer code inherent in the combination of functional and expressive aspects is typical of modern First Amendment jurisprudence. The court treated the DMCA as a content-neutral regulation aimed at the functionality of circumvention code and affecting its expressive content only incidentally.²⁴³ Accordingly, the court analyzed the anticircumvention prohibition under the lenient review standard applied to content-neutral regulations, finding that enjoining Corley from posting and knowingly linking to DeCSS passes muster.²⁴⁴

The Second Circuit’s decision in *Universal City Studios* correctly articulated and applied the functionality principle. A finding that computer code is merely expressive, or that it constitutes speech, is insufficient to determine whether and how the First Amendment applies to a particular regulation of code. The crucial element of the analysis is whether and how the regulation targets significant speech practices, as opposed to just the functional aspect of code. Unfortunately, the court’s insistence on fitting its analysis of this question into the Procrustean bed of a content-neutral review standard is untenable. The prerequisite for applying the content-neutral, intermediate review standard is finding that the regulation does not target specific speech on the basis of its content. The court was able to find that the DMCA was content neutral by artificially unbundling the expressive and functional aspects of computer code and concluding that the anticircumvention prohibition only targeted the latter. The opinion conveys this argument through the metaphor of a skeleton key that happens to have some text emblazoned upon it.²⁴⁵ The anticircumvention regulation, the court explained, is content neutral “just as would be a restriction on trafficking in skeleton keys identified because of their capacity to unlock

238. See 17 U.S.C. § 1201(a)(2) (2012).

239. *Universal City Studios*, 273 F.3d at 436.

240. *Id.* at 445.

241. *Id.* at 449.

242. *Id.* at 452.

243. *Id.* at 454.

244. *Id.* at 453–58.

245. *Id.* at 452–54.

jail cells, even though some of the keys happened to bear a slogan or other legend that qualified as a speech component.”²⁴⁶ The metaphor is misleading. In the case of computer code, unlike the case of the text-bearing key, the speech and the function are inexorably bundled together.²⁴⁷ In order to carry out a function in a specific way, computer code must have specific expressive content. The specific expressive content of code—the meaning understandable by humans who can read it—follows directly from the specific function it carries out.²⁴⁸ In short, with code the expressive content *is* the function and vice versa. It follows that a regulation of code cannot target a specific function without directly targeting specific expression because of its content. Unlike the regulation of skeleton keys, which affects the text on the keys only incidentally, targeting the function of computer code *is* targeting specific content of code.²⁴⁹

Disentangling the effects of regulation of code on function and content cannot be done on the level of speech, as the *Universal City Studios* court’s content-neutrality analysis attempts. But it can be done on the level of social speech practices. A regulation cannot target a specific function of code without directly targeting a specific expressive content, but it can target a normatively irrelevant functional speech practice without targeting normatively relevant speech practices. A prohibition on causing a computer to execute circumventing computer code, for example, targets specific speech on the basis of its content, but it does not target a social practice that directly realizes First Amendment values. In such a case, the regulation affects only uncovered speech and does not trigger First Amendment review at all. When the analysis is done on the appropriate level—that of

246. *Id.* at 454.

247. One can demonstrate how speech and function are inexorably bundled together through a somewhat clumsy metaphor that is more accurate than the court’s skeleton key. A decryption code is analogous to a key whose function depends on a particular shape, where the shape itself is expressive. Imagine, for example, a key that to achieve its unlocking function must have a combination of numerous ridges in the form of English letters divided into meaning-bearing words and sentences. With this metaphoric key, as in the case of code, a particular function inevitably involves a particular expressive content. Regulating a certain function inescapably means regulating a specific expressive content.

248. Samuelson et al., *supra* note 232, at 2316 (describing computer programs as “machines (entities that bring about useful results, i.e., behavior) that have been constructed in the medium of text (source and object code)”).

249. A regulation may be considered content neutral even if its incidental effect disproportionately affects particular speech. *See Hill v. Colorado*, 530 U.S. 703, 736 (2000) (Souter, J., concurring) (“[T]he permissibility of a time, place, or manner restriction, does not depend on showing that the particular behavior or mode of delivery has no association with a particular subject or opinion.”); *McGuire v. Reilly*, 260 F.3d 36, 44 (1st Cir. 2001) (“The critical question in determining content neutrality is not whether certain speakers are disproportionately burdened, but, rather, whether the reason for the differential treatment is—or is not—content-based.”). Thus, a regulation of noise levels may be considered content neutral even if it disproportionately adversely affects the performance of a particular genre of speech, for example rock music. The regulation of computer code does not fall within this category of content-neutral regulations. The regulation of code does not disproportionately affect particular content in a way that is incidental to targeting a particular function. As explained, when it comes to code, the function and the expressive content are one and the same, and targeting the function *is* targeting specific content.

speech practices—its focus changes. The doctrinal inquiry becomes coverage rather than the appropriate review standard.

Stripped of its indefensible flee to the content-neutral intermediate review standard, *Universal City Studios* provides a template for a First Amendment functionality doctrine. Faced with a First Amendment challenge to a regulation affecting speech that closely combines functional and expressive elements, a court should go through several stages of analysis.

First, the court should examine the specific social speech practices affected by the regulation. Any dominantly functional practice that only trivially realizes free speech values is not covered, and the effect of the regulation on it does not require First Amendment scrutiny. A good example of uncovered suppression of speech in the context of the DMCA anticircumvention provisions is the prohibition on circumventing a technological measure controlling access to a copyrighted work (contrasted with the prohibition on trafficking in such technology).²⁵⁰ The speech practices targeted by this prohibition are purely functional. They are geared toward achieving the utilitarian end of defeating a protection measure and achieving access and they do not directly implicate free speech values.²⁵¹

Alternatively, if an affected speech practice is found to directly realize free speech values, the First Amendment must be applied. In cases such as those of computer code, where the functional and expressive aspects of the speech are closely entangled such that regulation of the function necessarily entails the regulation of content, the strict standard applied to content-based regulation must be used. The case of Professor Edward Felten falls within this category. Felten, a computer science researcher at Princeton University, intended to present an academic paper demonstrating how his team broke the digital music watermarking scheme developed by the industry consortium known as Secured Digital Music Initiative (SDMI). He was soon faced with legal threats from the Recording Association of America accusing him of alleged trafficking in circumventing technology in violation of the DMCA.²⁵² Felten's First Amendment claim in the ensuing litigation, which was never decided on the merits, supplies a good example of covered regulation of functional speech.²⁵³ The social practice at issue—

250. See 17 U.S.C. § 1201(a)(1)(A) (2012).

251. The speech potentially involved with circumventing a protection measure is not necessarily computer code. Consider, for example, an access protection scheme that requires users seeking access to a database to send to the system administrator a password consisting of a poem verse. A person who defeats the scheme by using software that uncovers the correct password and communicates the verse produces speech in the sense of a meaningful expression that others may potentially understand, but the speech practice is purely functional in nature.

252. See YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* 416 (2006); LAWRENCE LESSIG, *FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY* 155–57 (2004); Pamela Samuelson, *Anticircumvention Rules: Threat to Science*, 293 SCIENCE 2028 (2001).

253. See Complaint at 15–16, *Felten v. Recording Indus. Ass'n of Am., Inc.*, No. CV- 01-2669 (D.N.J. June 26, 2001). The case was dismissed after the Recording Industry

the presentation of an academic paper in an academic forum—is within the heart of speech practices traditionally recognized as realizing free speech values. Thus, despite the functional aspect of the speech (i.e., the fact that it embodied a method for defeating the music protection scheme) a functionality doctrine would not regard regulation of this speech as uncovered by the First Amendment. Furthermore, notwithstanding the fact that the DMCA’s antitrafficking prohibition targets the functional aspect of the speech—its aim is to prevent the proliferation of circumvention capabilities—the applicable standard in this case is the strict standard applied to content-based regulation. To prevent the proliferation of circumvention technology, the regulation must regulate academic presentations like that of Felten on the basis of their specific content.²⁵⁴

Finally, even if a particular speech practice is determined to be functional, thereby freeing its regulation from First Amendment scrutiny, any instrumental effect of the regulation on other normatively relevant speech practices must be considered. This is the case of the possible detrimental effect of restricting the dissemination of encryption code on anonymous speech.²⁵⁵ The equivalent argument in the DMCA context is that the statute’s strict regulation of access circumvention and of trafficking in circumventing technology may result in an overbroad restriction of speech, depriving many users of effective means of creating expression in the digital age even when no legitimate interest such as preventing copyright infringement is being served.²⁵⁶ According to this argument, overly aggressive restriction of circumventing technology may result in depriving many of access to valuable expressive materials in the public domain or under circumstances of fair use.²⁵⁷ Notwithstanding that courts gave this argument short shrift, any probable instrumental effect of this kind

Association of America publicly announced it would not bring suit against Felten. Press Release, Elec. Frontier Found., Security Researches Drop Scientific Censorship Case (Feb. 6, 2002), available at http://w2.eff.org/IP/DMCA/Felten_v_RIAA/20020206_eff_felten_pr.html.

254. Between the two polar cases discussed in the text in regard to the DMCA anticircumvention provisions lie harder cases in which the line between functional speech practices and those that realize First Amendment values is harder to draw. The order in *Universal City Studios* that enjoined posting of circumventing code on a website and linking to websites offering such code is a case in point. Plausible arguments exist for regarding either posting or linking as primarily functional in nature or, alternatively, for seeing them as implicating nonfunctional practices realizing free speech values. The existence of hard borderline cases, however, rather than being a fatal flaw, is a trait of any criterion or category.

255. See *supra* text accompanying note 234.

256. See Yochai Benkler, *Free As the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354, 416 (1999) (observing that if the acts of circumvention by users “were privileged as a matter of free speech, it would be difficult to sustain a prohibition on manufacture and sale of the products necessary to enable users to engage in circumvention” and likening such a prohibition to a law that prohibits the manufacture or sale of printers or modems).

257. See *id.* at 421 (“[The anticircumvention provision] prohibits circumvention per se, with the legal consequence of giving the copyright owner a power to extinguish the user’s privileged uses.”).

must be analyzed under the proper First Amendment standard.²⁵⁸ But the focus of this stage of the analysis will be the effect of the regulation on the normatively significant speech practices that are instrumentally supported by circumventing technology, not the effect on circumventing technology as speech.

B. Search Ranking As Functional Speech

How does the functionality framework apply to implied observations of relevance embodied in search ranking? As previously explained, the speech practices of search engines are not connected in a meaningful way to the realization of First Amendment values.²⁵⁹ The functionality analysis leads to the flipside of this conclusion: the speech practices of search ranking are not connected to free speech values because they are predominantly functional.

Search ranking is functional speech because its overwhelmingly dominant purpose and character is serving an instrumental function: assisting users in locating and accessing content relevant to their specific preferences. Uses of general-purpose internet search engines vary. As mentioned above, some uses are navigational, in the sense that the user already knows what information or at least what venue she is trying to access and only uses the search engine as a directional tool (e.g., Jill searches “Macy’s sale” in an attempt to reach the Macy’s sale website).²⁶⁰ Other searches are much more open ended and therefore include a stronger element of the search engine shaping users’ preference (e.g., Jack searches “affirmative action” hoping to educate himself on the subject). Different search instances are located on different points of this spectrum. Even in instances located closer to the open-ended pole of the search spectrum, however, search engines’ ranking operates as functional speech. The communication search engines generate is merely an instrumentality in the process of helping users locate and access certain information.

Search engines undoubtedly differ from completely passive conduits for transmitting information, such as cable services providers. Rather than passively facilitating access by users to content on the basis of predetermined user preferences, search engines often take a more significant and active part in influencing and structuring the preferences of users.²⁶¹ James Grimmelman captured this role of search engines by

258. *See Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 459 (2d Cir. 2001) (finding that “the DMCA does not impose even an arguable limitation on the opportunity to make a variety of traditional fair uses” and holding that “the fact that the resulting copy will not be as perfect or as manipulable as a digital copy . . . provides no basis for a claim of unconstitutional limitation of fair use”).

259. *See supra* text accompanying notes 183–95.

260. *See generally* Broder, *supra* note 209.

261. The distinction is one of degree. Even entities much closer to being passive conduits relative to search engines often play some role in structuring users’ preferences. A cable provider, for example, plays a weak role in shaping users’ preferences by selecting the channels available on its system.

describing them as “advisors.”²⁶² The metaphor aptly captures the active role of search engines in forming users’ preferences. But it may also be misleading. The term evokes the image of one who helps another shape her preferences through discursive practices: reasoning, dialogue, debate, or exchange of opinions. But it is the absence of this discursive element from the search process that makes it functional. This predominant functional operation of search ranking is exactly what any plausible regulation targets, whatever its underlying policy rationale. The aim of any legislative measure or applicable common law doctrine is the instrumental effect of rankings: the way they channel users to specific content by specific providers.

One may object that the fact that a particular speech results in certain effects, and that such postulated effects motivate its regulation, does not make the regulated speech practice functional. Many regulations of speech covered by the First Amendment are motivated by and target supposed harmful or undesirable effects of speech. Advocates of regulating violent computer games, for example, often point to the claimed causal connection of exposure to such speech to violent behavior.²⁶³ The crucial difference is that in the case of functional speech practices, the connection between the speech and the targeted effect is not mediated through normatively significant speech practices. In such cases, the speech operates merely as an instrumentality, a means for bringing about the relevant effect without implicating practices that realize free speech values. This is the difference between excluding certain businesses from being listed in a *Yellow Pages* directory and publishing bad reviews of the services provided by those businesses. Both instances may result in reducing the patronage of the businesses and both may shape customer preferences. But it is only the latter that achieves the effect and shapes preferences through discursive practices that realize free speech values. The speech embodied in search engine ranking is of the former kind. It instrumentally facilitates a functional process of channeling users to websites, and thereby helps to shape users’ preferences, but does not do so as part of a social practice relevant for free speech values. As a result, search engine ranking falls within the category of functional speech not covered by the First Amendment.

CONCLUSION

Initially, the claim that First Amendment protection extends to ranking of search results may appear well founded, at least as a matter of positive law. On closer examination, this certainty disappears. The First Amendment has a vital role to play in limiting governmental power to use search engines as tools for suppressing the speech interests of information providers and

262. Grimmelmann, *supra* note 12, at 874.

263. *See, e.g.*, *Brown v. Entm’t Merchs. Ass’n*, 131 S. Ct. 2729, 2748–51 (2011) (Alito, J., concurring) (discussing arguments about the possible effects of violence in video games in light of the interactive nature of this media).

users. Applied in this way, however, even vigilant protection of free speech rights allows much leeway for regulations of search engines that do not have clear censorial effects or motivations in regard to users or information providers. The more ambitious arguments that claim constitutional protection for the speech interest of the search engine itself produce somewhat inconclusive results under existing doctrine. As a normative matter these arguments fare much worse. The relevant social practices of search engine speech lack any meaningful connection to any values underlying freedom of speech. As a result, there is no justification for extending the strong protection of the First Amendment to these practices, speech in the technical sense though they may be.

An important side effect of closely examining the arguments for search engine speech is bringing to the fore the long-recognized but oft-repressed question of First Amendment coverage. The claim that any regulation of search results triggers the First Amendment simply because search rankings qualify under a broad, technical definition of speech raises with full force the question of coverage limitations. The implications of rejecting any such limitations on the scope of the First Amendment could be momentous in terms of the constitutional restrictions laid on government's ability to regulate in the information age. This is not simply a matter of criticizing existing law. Coverage is part and parcel of existing First Amendment jurisprudence, and yet it is an area of this law that is particularly obscure and unarticulated. The development of a more explicit and elaborate functionality doctrine could clarify this aspect of the law, at least in regard to an important subset of the cases where activities that qualify as speech do not receive First Amendment protection.

Perhaps most importantly, the search engine speech debate is a poignant reminder that the field of First Amendment law could use a healthy dose of some of the familiar lessons of legal realism. One such lesson is the internal complexity of legal doctrine. The mechanical application of abstract concepts, such as a general definition of speech, rarely decides concrete legal questions, especially ones involving new and challenging circumstances like the question of search engine speech.²⁶⁴ This complexity is a feature of existing legal doctrine that already contains nuances that prevent unproblematic derivation of clear outcomes in concrete cases from abstract general principles.²⁶⁵ Understood against this backdrop, conceptual abstractions that may seem determinative of the issue, such as the editorial search engine or the opinionated search engine, lose much of their appeal. Whether the First Amendment protects search engines' absolute control of their search ranking is a new and challenging

264. On the realist critique of deductive and analogical reasoning, see EDWARD PURCELL, *THE CRISIS OF DEMOCRATIC THEORY: SCIENTIFIC NATURALISM AND THE PROBLEM OF VALUE* 89 (1973), and WILFRID E. RUMBLE, JR., *AMERICAN LEGAL REALISM: SKEPTICISM, REFORM, AND THE JUDICIAL PROCESS* 55–63 (1968).

265. See William W. Fisher, III, *The Development of Modern American Legal Theory and the Judicial Interpretation of the Bill of Rights*, in *A CULTURE OF RIGHTS: THE BILL OF RIGHTS IN PHILOSOPHY, POLITICS, AND LAW—1791 AND 1991*, at 270–71 (Michael J. Lacey & Knud Haakonssen eds., 1991).

normative question. It is a normative question, moreover, that cannot be answered solely by reference to such abstractions as what constitutes speech or who is an editor. An adequate answer can only be provided in light of the concrete details of the social practices to which the legal rule is applied.²⁶⁶ This Article argues that such an examination of the normative significance of the social practices of search engine speech yields no reason to extend First Amendment protection to search rankings.

266. *Id.* at 274–75.