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Article

***1149** FEDERAL SEARCH COMMISSION? ACCESS, FAIRNESS, AND
ACCOUNTABILITY IN THE LAW OF SEARCHOren Bracha, **Frank Pasquale** [FNd1][FNd1]

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Should search engines be subject to the types of regulation now applied to personal data collectors, cable networks, or phone books? In this Article, we make the case for some regulation of the ability of search engines to manipulate and structure their results. We demonstrate that the First Amendment, properly understood, does not prohibit such regulation. Nor will such intervention inevitably lead to the disclosure of important trade secrets.

After setting forth normative foundations for evaluating search engine manipulation, we explain how neither market discipline nor technological advance is likely to stop it. Though savvy users and personalized search may constrain abusive companies to some extent, they have little chance of checking untoward behavior by the oligopolists who now dominate the search market. Arguing against the trend among courts to declare search results unregulable speech, this Article makes a case for an ongoing conversation on search engine regulation.

I.	Search Engines as Points of Control.	1152
	A. A New Hope?.	1152
	B. The Intermediaries Strike Back.	1161
	1. The New Intermediaries.	1161

	2. Search Engine Bias.	1167
II.	What Is Wrong with Search Engine Manipulation?.	1171
III.	Why Can't Non-Regulatory Alternatives Solve the Problem?.	1179
	A. Market Discipline.	1179
	B. The Technological Fix: Personalized Search.	1186
IV.	Potential Obstacles to Search Engine Regulation.	1188
	A. Will the First Amendment Bar Effective Regulation?.	1188
	B. Balancing Secrecy and Transparency.	1201
V.	Conclusion: Toward Regulation of Search Engine Bias.	1206

*1150 “My God, I thought, Google knows what our culture wants!” [FN1][FN1]

Forty years ago, Jerome Barron's seminal article on access to the press highlighted the double-edged nature of First Amendment rights when applied to mass-media. As he noted, dominant players have employed “free speech” rights quite skillfully, “[b]ut what of those whose

ideas are too unacceptable to secure access to the media? To them the mass communications industry replies: The first amendment guarantees our freedom to do as we choose with our media.” [FN2][FN2]

The rise of the Internet during the last fifteen years led some to hope that technology would resolve this dilemma. [FN3][FN3] Enthusiasts predicted the network would ameliorate the traditional mass-media bottleneck and render moot the policy and legal debates that surrounded it. [FN4][FN4] Sadly, we now know better. As the Internet matured, it became evident that many of the old difficulties accompanied the new possibilities, though often in new guises. [FN5][FN5] In this Article we extend Barron's inquiry to the most influential gatekeepers of information and ideas in the digital age: Internet search engines.

Though rarely thought of as a “mass medium,” search engines occupy a critical junction in our networked society. Their influence on our culture, economy, and politics may eventually dwarf that of broadcast networks, radio stations, and newspapers. [FN6][FN6] Located at bottlenecks of the information infrastructure, search engines exercise extraordinary*1151 control over data flow in a largely decentralized network. [FN7][FN7] Power, as always, is accompanied by opportunities for abuse, along with concerns over its limitation to legitimate and appropriate uses.

This Article concerns one aspect of this growing power: search engines' power to manipulate their results, thereby affecting the ability of Internet communicators to reach potential audiences. [FN8][FN8] To date, the three courts that have adjudicated cases involving allegations of manipulation rejected all legal claims and refrained from imposing any meaningful restraints on the ability of search engines to manipulate their results. [FN9][FN9] Moreover, two of these courts found that search results are opinions “entitled to full constitutional protection” under the First Amendment. [FN10][FN10] Such decisions risk ending the discussion over search engine regulation before it has even begun. Yet they have been commended by commentators who see search engines as little different than newspapers and thus deserving of similar laissez faire treatment. [FN11][FN11]

The purpose of this Article is twofold: first, we explain why search engines with a completely free reign to manipulate their results raise many concerns similar to those associated with traditional mass media; second, we make the case for some regulation of the ability of search engines to manipulate and structure their results. [FN12][FN12] Part I situates search engines in the context of Internet-speech scholarship. This *1152 scholarship has developed from early sweeping optimism about the speech-possibilities of a decentralized network to a variety of more cautious and sober positions. [FN13][FN13] A key feature of Internet communication is the existence of gatekeepers--technological chokepoints whose configuration greatly affects the character of this medium. [FN14][FN14] The section elaborates the claim that search engines constitute one of the most important gatekeepers on the Internet and gives an account of the problems caused by search engines' bias.

While manipulation of search results may seem instinctively problematic, it is not always

clear what exactly is wrong with such practices. Part II lays the normative foundations for evaluating search engine manipulation. It briefly surveys the social values and interests that may be adversely affected by some forms of manipulation. Part III explains why, contrary to the belief of some commentators, [\[FN15\]](#)[\[FN15\]](#) the situation is not likely to fix itself. Though the market choices of users and technological developments constrain search engine abuse to some extent, they are unlikely to vindicate the values mentioned in Part II. Part IV discusses two threshold objections to any attempt to regulate search results manipulation. First, assuming that legal regulation of some manipulation practices is desirable, is it, nonetheless, barred by the First Amendment? We answer this question in the negative and explain why the First Amendment, properly understood, does not prohibit all regulation of search engines' results. Second, will regulation of manipulation require disclosure of secret information that could jeopardize the quality of search engines? We argue that the public and private interests in maintaining the secrecy of the search process should be balanced against the public interest in disclosure and that the proper institutions for achieving this balance may be developed. We conclude by sketching some possible directions for effective regulation.

I

Search Engines as Points of Control

A. A New Hope?

Barron's work on access to the press reflected decades of frustration with the mass media and its effect on speech, culture, and the *1153 democratic process. [\[FN16\]](#)[\[FN16\]](#) The broadcast model that consolidated during the twentieth century was characterized by a sharp dichotomy between broadcasters and consumers. [\[FN17\]](#)[\[FN17\]](#) The former--an ever-shrinking group of powerful and wealthy corporate giants--came to control the most influential information media. [\[FN18\]](#)[\[FN18\]](#) Viewers were largely reduced to the status of passive consumers, free only to choose among the informational commodities offered by the handful of giants. [\[FN19\]](#)[\[FN19\]](#) Broadcasters functioned in this system as the gatekeepers of society's information flows. [\[FN20\]](#)[\[FN20\]](#) They were the essential intermediaries through which anyone who wanted to speak effectively to a significant number of people had to pass. [\[FN21\]](#)[\[FN21\]](#)

There were many problems with this system. Unless one was wealthy enough to own a broadcasting entity or produced the kind of content approved by broadcasters, one had no voice in the mass media. [\[FN22\]](#)[\[FN22\]](#) This, in turn, cultivated a widespread habit of passive, unidirectional information-consumerism. [\[FN23\]](#)[\[FN23\]](#) Second, even from a *1154 Meiklejohnian perspective that is happy to sacrifice the ability of everybody to speak as long as everything worth saying is heard, [\[FN24\]](#)[\[FN24\]](#) the broadcast system was highly problematic. Concentrated control over the channels of communication translated into concentrated control over content. [\[FN25\]](#)[\[FN25\]](#) The media intermediaries were in a position to highlight preferred content and suppress or ignore unpopular points of view. [\[FN26\]](#)[\[FN26\]](#) They were also in a position to give preference to content originating in a limited circle of allies and affiliates over that

of “outsiders.” [FN27][FN27]

More importantly, strong structural forces inherent in the broadcast system worked to suppress the controversial, marginal, and non-conventional. Broadcasters faced with high fixed costs had to attract a mass audience. [FN28][FN28] This created a bias toward the lowest common denominator, namely mainstream and majority preferences. [FN29][FN29] Similarly, the business models of many broadcasters dictated a bias toward the commercially effective: content that was more appealing to those likely to consume advertised goods and to reinforce consumerist impulses. [FN30][FN30] The net outcome of this system was hardly an ideal picture of a vital and diverse marketplace of ideas. Nevertheless, libertarian *1155 scholars questioned whether the situation was indeed so bleak and whether law could improve the situation. [FN31][FN31] The deregulatory impulse of the past few decades has assured their dominance in agencies responsible for media regulation. [FN32][FN32]

Then, in the early 1990s, a new technological hope arose for critics of an impoverished public sphere. The rise of the Internet as a pervasive alternative model of communication sparked widespread optimism. [FN33][FN33] Unlike traditional mass media's broadcast model, Internet communication was based on a peer model. [FN34][FN34] Instead of a few entities at the “center” that control the network and the content that is transmitted to the “ends,” the Internet worked in a much more decentralized way: a common and open protocol was used to facilitate direct communication between all users or “ends” connected to the network. [FN35][FN35] More specifically, a few features of Internet communication seemed to combine to ameliorate the shortcomings of the broadcast system. Cheap and accessible multi-purpose computers and storage devices placed the ability to create, manipulate, and receive content in the hands of the many. [FN36][FN36] A global end-to-end network, unencumbered by the limitations of spectrum scarcity, enabled instantaneous mass dissemination of content along with bi-directional interactive communication among numerous users. Low barriers to entry meant less dependence on large income generated by mass audiences and hence less commercial pressure to attract a mass audience. [FN37][FN37]

The Internet also made possible a variety of peer-production models. [FN38][FN38] Projects that require cooperation between many individuals and mass aggregation of resources were previously feasible only through the hierarchical and usually market-oriented structure of the *1156 firm. [FN39][FN39] Now they became viable under a decentralized model of cooperation that could be pursued even in the absence of strong market orientation. [FN40][FN40] Most importantly for our context, the peer model of communication seemed to do away with the old intermediaries and their associated ills. [FN41][FN41] “Avoiding the intermediaries” was the catchphrase of the early Internet. [FN42][FN42]

These new production models attracted much optimism from various observers. Despite some early cautionary notes, [FN43][FN43] many saw the Internet as a speech utopia: a new and exciting opportunity to escape the shortcomings of the broadcast system and create a modern agora. Consider the following prophecy that appeared in a treatise on telecommunications law:

The network will supply room enough for every sight and sound, every thought and expression that any human mind will ever wish to communicate. It will make possible a wildness of spirit, where young minds can wander in adventurous, irresponsible, ungentle ways. It will contain not innocence, but a sort of naive gaiety, a buoyant, carefree feeling, filled with confidence in the future and an unquenchable sense of freedom and opportunity. It will be capitalist civilization at its best. [FN44][FN44]

The Internet even excited the Supreme Court, which declared in 1997 that “any person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox. Through the use of web pages, mail exploders, and newsgroups, the same individual can become a pamphleteer.” [FN45][FN45]

*1157 This Internet-speech utopianism had two main consequences for legal thought. First, commentators urged courts and policymakers to grant a high degree of protection to Internet speech. [FN46][FN46] Commentators justified this strong protection on two grounds: overzealous government regulation could thwart the new speech utopia; [FN47][FN47] and Internet communication does not possess the characteristics that supported broad regulation of broadcast media. [FN48][FN48] Second, a significant group of commentators began to claim that the best way to safeguard the Internet as a vital and diverse speech environment was for government to keep its hands off it altogether. Within the decades-long debate over broadcast regulation, there was a strong, though not universal, claim that government regulation was essential in order to enhance diversity and access, keep bias in check, and promote democracy. [FN49][FN49] The Internet, the argument went, fundamentally changed things. Even if the broadcast system needed some speech-enhancing regulation, the decentralized Internet environment was already free from the traditional speech-hierarchy, so regulation would be both unnecessary and dangerous. [FN50][FN50] Government, even when good-intentioned, had to be kept out.

The early hegemony of Internet-speech utopianism has gradually declined during the last decade or so as the number of more skeptical voices increased. The optimistic narrative has been challenged on various*1158 grounds but the strand of arguments most relevant for our purposes is the one that takes information-overload as its starting point. The Achilles heel of Internet communication is not lack of information but, rather, too much information. [FN51][FN51] Users have found themselves surrounded by “data smog”; they are bombarded by much more information than they could ever process, most of which was of little or no use to them. [FN52][FN52] Filtration designed to find relevant, credible, and effective information has become the key to web communication. The ultimate goal of speakers has become to capture as much attention of as many users as possible. [FN53][FN53]

The first generation of Internet-speech skeptics claimed that the old media intermediaries or their subsidiaries would enjoy significant advantages over all other speakers. [FN54][FN54] Content producers compete for attention, and the established and wealthy players possess many superior capacities to attract and capture users' attention: producing expensive content in high-quality formats; advertising, promotion, and visibility-enhancement abilities; stealth

marketing techniques; and various cooperation and exclusion strategies. [FN55][FN55] If successful, these strategies would gradually reproduce the traditional speech-hierarchy of broadcasting in the Internet environment; small, independent speakers would be relegated to an increasingly marginal position while a handful of commercial giants capture the overwhelming majority of users' attention and reemerge as the essential gateways for effective speech. [FN56][FN56]

Emerging empirical research on patterns of Internet use has tended to support this claim. The visibility of websites, usually measured through links, turns out to be highly skewed, consisting of a power law distribution of a very small number of highly visible websites***1159** and a very “long tail” of almost unnoticed ones. [FN57][FN57] One of the more influential works found a “complete absence of democracy, fairness, and egalitarian values on the Web” and concluded that “the topology of the Web prevents us from seeing anything but a mere handful of the billion documents out there.” [FN58][FN58] In short, on the Internet, everyone may be formally equal in communicative capacity, but media giants establish dominant positions and are actually more powerful than others.

More refined versions of Internet-speech optimism have recently emerged to counter skeptics who emphasized the continued dominance of old-style content intermediaries. For example, Yochai Benkler defends the relative superiority of Internet speech (in comparison with old broadcasting and print models) by analyzing patterns of information flow and visibility on the network. [FN59][FN59] The web, he explains, consists of multiple levels of clusters of interlinked websites; local clusters based on topic, interest, or similar criteria coalesce to form higher-order clusters. [FN60][FN60] These high-order clusters are characterized by a very small number of highly visible sites and a multitude of nearly invisible ones; lower-level clusters have a small number of dominant sites too, but visibility and exposure is much more broadly and evenly distributed among the other websites. [FN61][FN61]

This structures results in a bottom-up filtration system. At the lowest level, a large number of speakers receive relatively broad exposure within local communities likely composed of individuals with high-intensity interest or expertise. [FN62][FN62] Speakers who gain salience at the lower levels may gradually gain recognition in higher-order clusters and eventually reach general visibility. [FN63][FN63] Benkler argues that a grass-roots, decentralized filtering system of this kind is much less susceptible to the degrading effect of mass-consumption commercial models. [FN64][FN64]

***1160** Jack Balkin offers a somewhat different, but not inconsistent, defense of Internet-speech optimism. Balkin acknowledges that though speakers in the digital network environment can occasionally “route around” traditional media intermediaries, the giant intermediaries are likely to maintain significantly superior salience and exposure, both on and off the Internet. [FN65][FN65] Balkin suggests that the real hope comes from the cultural practices, augmented by digital technology, that he calls “glomming on.” “Glomming on” takes the widespread use of content from the giant intermediaries as a broadly accessible point of reference,

while reinterpreting, manipulating, or changing this content to imbue it with new meaning and create new speech. [FN66][FN66] Thus, from Balkin's perspective, the promise of the Internet is not the decline of the old intermediaries but the appearance of an additional, democratized avenue of expression that coexists with intermediaries in a complex symbiosis. [FN67][FN67]

The crux of the new speech-optimism espoused by Benkler, Balkin, and others is the claim that the Internet, while it falls short of a speech utopia, still opens up significant opportunities for improvement over the traditional mass-media system. The optimists concede that the old intermediaries or their Net-replicas will maintain some level of power but argue that there are also new and non-trivial alternatives for effective speech. These alternatives are claimed to constitute a much more decentralized and open model and significantly ameliorate many of the ills identified by critics of mass-media.

*1161 B. The Intermediaries Strike Back

1. The New Intermediaries

To understand the next phase of the Internet-speech debate in which general purpose search engines finally enter the picture, one has to situate it within the general trends in Internet thought. Many saw the early days of the popularized Internet as a libertarian dream-come-true. [FN68][FN68] Whether they celebrated or lamented it, many observers agreed that the Internet significantly reduced the state's ability to effectively regulate human behavior. [FN69][FN69] Effective regulation seemed all but impossible in a highly decentralized network where there was no easily controllable center and where millions of nodes could instantaneously, cheaply, and relatively anonymously transmit and retransmit information across jurisdictional borders. [FN70][FN70] This seemed equally true in regard to any attempt to regulate or control the flow of information over the Net.

Gradually, however, technolibertarian visions of the Internet lost plausibility. They have now been supplanted by perspectives that emphasize the Internet's "points of control," which have several components.

First, the point-of-control theory recognizes that various social actors develop and control the technology that comprises the Internet, including physical communication infrastructure, interconnection standards, and the hardware and software that constitute the nodes connected to the network. [FN71][FN71] While the Internet has no center, the actors who control these technological components can create bottlenecks that are points of control. Such gatekeepers can influence even the decentralized flow of information, and business and government *1162 soon discovered their usefulness in monitoring and shaping human behavior. [FN72][FN72]

Second, the technological structure of the Internet is not static. [FN73][FN73] Technology is a plastic medium, open to a broad range of reshaping, entailing various patterns and degrees of control. [FN74][FN74] Regulation of the Internet through technological gatekeepers, combined

with the possibility of reshaping technology, can make possible previously unimaginable levels of control and surveillance. [FN75][FN75]

Third, either private forces or public pressures, or some combination of the two, can shape technology and the control opportunities that it offers. [FN76][FN76] As demonstrated by numerous works in the field of Science and Technology Studies (STS), such forces shape both the development and the diffusion of new technologies. [FN77][FN77] Annalise Riles has observed that, far from being neutral instruments, “technologies come into being in order to overcome the political and epistemological limits of existing knowledge, and hence these technologies are best understood quite literally as politics by other means.” [FN78][FN78] Just as *1163 technology influences the development of policy, policy can shape technology. [FN79][FN79]

Fourth, the law, in combination with other social factors, plays an important role in shaping technological development. [FN80][FN80] It may do so directly by mandating or prohibiting certain technological standards. [FN81][FN81] It may also work indirectly by shaping the social or market conditions that in turn influence technological development. [FN82][FN82]

Much of Internet law scholarship since the late 1990s has focused intently on the points of control outlook. [FN83][FN83] Growing awareness of these points of control has led to a second generation of academic skepticism about the potential of the Internet to liberate speech. These commentators argue that network gatekeepers, who exercise control over the Internet's technological bottlenecks, constitute the new speech intermediaries. [FN84][FN84] Although sometimes cooperating or allying with the old media intermediaries, these new entities derive their crucial position from a different communication model than that of the traditional broadcast; thus, they may exercise power in different ways. [FN85][FN85] Nevertheless, under certain conditions, the new intermediaries of Internet communication may replicate many of the ills produced by the old intermediaries of the mass-media system. [FN86][FN86]

Early on, Niva Elkin-Koren identified search engines as an important class of new intermediaries. [FN87][FN87] Search engines play a crucial role in managing the enormous amount of information available on the *1164 Internet. [FN88][FN88] They help users locate the information most relevant and important to them and lead an audience (and interlocutors) to content providers. [FN89][FN89] With this gatekeeping role comes tremendous power, which several traits of the search process and market serve to consolidate. [FN90][FN90]

First, Internet sites have much riding on their index and ranking: as Nissenbaum & Introna memorably put it, “to exist [online] is to be indexed by a search engine.” [FN91][FN91] While users can locate relevant information on the Net in other ways, search engines now constitute the dominant platform through which content producers and audiences can reach each other. [FN92][FN92] Moreover, the search process itself is structured as a high-stakes, winner-takes-(almost)-all competition. [FN93][FN93] Search-results lists, which rank the outcomes for a user's search query hierarchically, may provide an effective filter for any given user, but rapidly congealing patterns of Internet use may lock speakers into a fierce zero-sum

competition for recognition. [FN94][FN94] The number of users attracted by a listed website steeply drops in correlation with its rank, beginning with the site ranked as second. [FN95][FN95] By the time one reaches *1165 later pages of the search-results list, such a rank is almost as bad as not being indexed at all. [FN96][FN96] In such an environment, where both commercial and non-commercial speakers place great weight on attracting users' attention, a high ranking is critical to success. Furthermore, a very small number of significant players dominate the lion's share of the search engine market, which has inherent structural characteristics that accelerate concentration and erect high barriers to entry. [FN97][FN97]

The result is that very few entities control the critical junction of Internet communication, and this situation generates problems similar to those diagnosed in broadcasting long ago. [FN98][FN98] These new gatekeepers can directly manipulate the flow of information--suppressing some sources while highlighting others--whether on the basis of intrinsic preferences or in response to inducements or pressures by others. [FN99][FN99] Second, the hierarchical ranking system, at least in its current one-size fits all form, has a strong bias toward majority preferences. [FN100][FN100] The majority bias partly overlaps with a dominance of well-financed and commercial speakers. [FN101][FN101] Third, the system tilts toward consumerist content both because consumption-oriented content-producers can more successfully induce manipulation and, more importantly, because search engines have an interest in channeling users *1166 toward sites with which they cooperate under various commercial schemes. [FN102][FN102]

Whether and to what extent such worrisome effects will materialize depends on many technological, social, and economic factors. The law, too, may exacerbate or ameliorate these problems. Many Internet-speech optimists of the newer generation happily concede that their vision exists only as a future possibility, whose realization depends, among other things, upon the technological, social, and economic environment shaped by the law. [FN103][FN103] In the context of search engines, the typical line of argument arising out of this assumption has focused on minimizing constraints on search engines. [FN104][FN104] The basic premise of these arguments is that the best structural remedy to the problems associated with search engines is to increase competition and lower barriers to entry in the field. [FN105][FN105] This, in turn, requires minimizing two sets of legal constraints that may make the operation of search engines cumbersome and costly: limitations under intellectual-property law and other doctrines, which restrict the ability of search engines to access and present the information relevant to their function, as well as the host of legal doctrines that create liability based on the content provided by indexed entities. [FN106][FN106] In order to facilitate a competitive and diverse arena of search engines, scholars have proposed that the law should reduce limitations on access to information*1167 [FN107][FN107] and should shield search engines from liability arising out of the content of indexed entities or keyword sales. [FN108][FN108]

However, while these two guiding principles may effectively facilitate comprehensive and authoritative search engines, they do not assure responsible ones. [FN109][FN109] Even absent pressures from content owners leveraging various legal doctrines, a search engine may have strong

incentives to exercise its power in troublesome ways. [FN110][FN110] Therefore, policymakers should at least consider restrictions on the ability of search engines to manipulate their results or legal remedies for those treated unfairly. In the next section, we demarcate the relatively narrow set of search engines' troubling practices, with which we will concern ourselves in this Article.

2. Search Engine Bias

Various phenomena that involve the manipulation or shaping of search engine results are usually referred to under the common rubric of “search engine bias.” [FN111][FN111] In fact, “search engine bias” covers a very broad range of different phenomena that merit diverse legal responses--and sometimes no legal response at all, given regulators' potential clumsiness in certain areas. [FN112][FN112] The following does not present a complete map of the universe of search engine bias but rather introduces a few important distinctions, helpful in demarcating our discussion here.

Instances of results manipulation by search engines differ from each other along several dimensions. First, there is the breadth of the manipulation. A search engine bias may affect the indexing of unspecified websites relatively universally, on the basis of generally applicable criteria. As Eric Goldman points out, every search engine is ***1168** “biased” in the strong universal sense. [FN113][FN113] Despite familiar claims about “neutrality” and “objectivity,” search engines filter and rank websites and, as such, they must favor some entities and disfavor others. [FN114][FN114] Whether the ranking relies on a completely automated algorithm or includes manual human intervention, the process must involve the application of some set of criteria. These criteria will be “biased,” in that they will either purposefully or indirectly give priority to some speakers and marginalize others. [FN115][FN115] Optimization of these criteria is an inherent and essential part of search engines' operation. [FN116][FN116] Optimization occurs through an iterative process, and with each “tweak” of the algorithm some sites will rise in prominence and others will fall.

At the other extreme, a manipulation may be highly specific or local. For example, a specific website could be individually targeted. Its rank could be increased or decreased, or it could be completely excluded. [FN117][FN117] The distinction is one of degree: there is a broad spectrum that stretches between completely specific manipulations and general biases. We focus on the former set of problems, aware that they may sometimes be exacerbated (or motivated) by the same pressures that drive the latter.

Second, search engine manipulations have various objectionable or at least controversial effects. The most intuitive kind of effect is suppression-- situations in which the manipulation excludes a particular ***1169** site or relegates it to obscurity. [FN118][FN118] The diametrically opposed effect is that of unwanted exposure--situations in which information about or presentation of a particular entity gains a high degree of salience, often in a particular context or in response to particular keywords, contrary to that entity's wishes or interest. [FN119][FN119] Although not strictly separate from the previous two classes of effects from search engine manipulation,

trademark-related harms warrant independent discussion. Such harms can involve unwanted suppression, unwanted exposure, or undue exposure for a site that appropriates a competitor's mark. For example, mark owners may claim that the use of trademarks as adwords by competitors of the trademarks' owners creates consumer confusion, dilution of marks or other reputational harms. [FN120][FN120]

Third, search engines manipulate and shape their results for many reasons. They are in a constant race to optimize their algorithm in order to satisfy users and maintain a competitive edge over rivals. [FN121][FN121] They must also foil attempted manipulation of results by indexed entities (and the "search engine optimizers" they hire to boost their ranking). [FN122][FN122] Site owners employ various tactics to boost their prominence, some legitimate, and some less so. [FN123][FN123] In some cases, search engines *1170 directly punish such attempts by banning the relevant websites from their results or specifically relegating them to a low rank. [FN124][FN124]

Search engines can also manipulate results in response to positive or negative inducements from other parties. In exchange for purchase of adwords, they can prominently display a site in response to certain keyword searches. [FN125][FN125] They may, at least in theory, demote a specific website upon payment from an interested third party. Search engines can also suppress a particular website in response to public pressures or demands from powerful private players, sometimes backed by various legal claims. [FN126][FN126]

Finally, search engines can and, to some extent, do manipulate results in order to serve their own self-interest. Thus, for example, the rank of a specific website could be reduced simply because the search engine sees it as a competitive challenge or a threat, because it dislikes the site's policies, or because of other ad hoc reasons. On the flipside, search engines can boost the visibility of websites in whose volume of traffic they have an interest, such as business partners and allies, or sites that participate in advertisement programs sponsored by the search engine.

Each of these types of search engine bias merits extensive analysis. We concentrate here on instances of manipulation by search engines that are relatively specific or local and whose troubling effect is suppression. Various relevant motivations will be discussed in the appropriate places. It is possible that our normative discussion and outline of possible legal regimes could be extended to other subsets of the universe of search engine bias, but this is likely to entail adjustments that will have to be undertaken elsewhere.

Before sketching legal regimes that are meant to deal with the problem of search engines' bias, two questions have to be addressed. First, we must identify the nature of the problem. Intuitive objections *1171 need to be grounded in guiding principles that give us clarity about what exactly is wrong with search engine manipulation practices. Second, even if the possibility of search engine manipulation does seem problematic, before rushing in to impose legal regulation, we have to ask whether market forces, new technology, or existing or developing norms may address our concerns. Do they render the theoretical possibility of suspect manipulation by search engines

unlikely in practice? The following two sections address these issues respectively.

II

What Is Wrong with Search Engine Manipulation?

Assuming that local manipulation practices by search engines do take place and are likely to continue in the future, what, if anything, is normatively wrong with them? We discuss briefly how search engine manipulation can undermine democratic values, economic efficiency, fairness, and individual autonomy.

Democracy

Concerns about the effect of search engine manipulation on democratic values recall the classic critiques of mass media reviewed above. An important democratic value, at least within concepts of democracy that are not so impoverished as to reduce it only to a majoritarian process, is an open and diverse public sphere. [FN127][FN127] There are two related rationales to the centrality of a robust speech arena. The one is the centrality to the polity of a public deliberative process that is as free as possible from public coercion and private power. [FN128][FN128] In such civic dialogues, a wide array of subjects get a chance to enter the public agenda; all relevant information and views, including unpopular and marginal ones, have some opportunity to be aired, examined,*1172 and debated. [FN129][FN129] The other rationale is the importance of an open and relatively equal chance to all members of society for participation in the cultural sphere. An important aspect of individual freedom is the ability to take part in the process of public-meaning-making and to engage with, reshape, or imbue with new meanings existing concepts, symbols, or beliefs. [FN130][FN130]

The specter of control by a handful of powerful gatekeepers over critical bottlenecks of informational flow threatens the openness and diversity of the Internet as a system of public expression. In some respects, the more significant threat is posed by the broad structural biases of search engines. Any inherent preference of search engines for content that is mainstream, produced by the powerful and well financed, or commercial is particularly significant because of its systematic character and effect. [FN131][FN131] Local, targeted manipulations may seem less significant by comparison.

This priority of concerns may be reversed, however, given Internet-speech optimists' recent justifications of patterns of prominence on the Net. The inherent, structural bias of search engines is mainly the result of the reliance of their ranking algorithms on number of links to a ranked website and the assignment of more substantial weight to links from sites that are highly visible or popular. [FN132][FN132] However, if Benkler's defense of Internet speech is correct, the fear of visibility that is skewed toward the preferences of a few popular, dominant, and usually wealthy websites loses much of its force. [FN133][FN133]

According to Benkler, the web functions as a decentralized, peer-based filtering system: lower-order clusters, where a large number of various speakers enjoy exposure to a community of intense-interest individuals, organically elevate a small number of sites to the attention of higher-order clusters. At the most general level, a power law distribution dictates that a small fraction of all websites receive most of the visibility. To the extent that the small group of winners was produced by the decentralized filtering system just described (and not picked by a few powerful players catering to the lowest common denominator), *1173 it should not be troubling. A mix of democracy and merit trumped plutocracy. By derivation, the same consoling logic applies to the structural bias of search engines. Search engine algorithms may give a high weight to the preferences of relatively few dominant websites in determining their rankings. But those preferences, and hence the search engine ranking that assigns them a high weight, are, to a large extent, a product of a bottom-up, “democratic” filtering system.

Yet this logic does not apply to more targeted manipulations by search engines. When a search engine specifically decides to intervene, for whatever reason, to enhance or reduce the visibility of a specific website or a group of websites, the decentralized filtering system may be circumvented. Instead of reflecting the synthesized results of a bottom-up filtering process, the search engine imposes its own preferences or the preferences of those who are powerful enough to induce it to act. [FN134][FN134] The aggregate result of specific interventions of this kind by search engines that determine which content reaches viewers may be prejudicial to the democratic aspiration of a free, open, and diverse expressive sphere.

Economic Efficiency

Concentrated control over the flow of information, coupled with the ability to manipulate this flow, may reduce economic efficiency by stifling competition. The centrality of information to efficient markets is well known. [FN135][FN135] Market participants need information about products and services to make informed economic decisions. [FN136][FN136] To the extent information is less available or more costly to obtain, the market will be less efficient and prices will be less competitive. Search engine manipulation may adversely affect the flow of information critical to the decisions of participants in the market. It may highlight market actors that otherwise would have enjoyed less popularity or suppress other actors and their ability to compete effectively. Put differently, *1174 attaining visibility and access to users is critical to competition and cooperation online. Centralized control or manipulation by search engines may stifle innovation by firms relegated to obscurity. The problem is directly analogous to the concerns raised by advocates of net neutrality in the wake of the growing prospect of traffic discrimination by another kind of Internet gatekeepers: Internet Service Providers (ISPs). [FN137][FN137]

Manipulation of this kind is likely to result in high barriers to entry that depress competition. Entrenched and well-established entities are more likely to have the resources necessary to induce search engines to manipulate results and thus preserve their market dominance. [FN138][FN138] New entrants and smaller competitors may find themselves excluded or unable to reach public consciousness. [FN139][FN139] As the Internet becomes a

central site for both market transactions and the information*1175 needed to make informed purchasing decisions, the anti-competitive effect of skewed information flows is likely to intensify.

Fairness

Probably the most intuitive problem associated with manipulation of search engine results is the sense of unfair treatment for those affected by a process they can neither fully comprehend nor effectively respond to. [FN140][FN140] Since major players in the field wield tremendous power, targeted interventions can lead their victims to lose a substantial part of their audience or business on the basis of an arbitrary or unfairly influenced decision by the search engine. Search engines command unlimited and unaccountable power to manipulate their results.

It may seem easy to dismiss this objection because search engines are private entities, not governmental organs. [FN141][FN141] Even if one uncritically accepts this public/private distinction, however, there is a subset of cases in which applying fairness norms to private entities is far from unheard of: when affected parties cannot “exit” or to turn to other alternatives. [FN142][FN142] When a private party occupies an extraordinary position of power that makes it indispensable to others for obtaining certain important resources, goods, or services, and when alternatives are very limited, traditionally there has been more receptiveness to the application of fairness and accountability norms. [FN143][FN143] When, for example, in the nineteenth century, railroads came to exercise vast, near-*1176 exclusive power over the ability of individuals to ship their goods and engaged in practices that were deemed unfair or discriminatory, the result was administrative and legal regulation of such practices. [FN144][FN144] Later, as the field of regulation developed, various schemes that enforce fairness norms, among other regulatory schemes, were applied to other private industries whose structure entailed similar exclusive power of private entities over the lives of individuals. [FN145][FN145] We will return to this parallel between search engines and other historically regulated industries later. [FN146][FN146] At the moment it suffices to point out that specific manipulations by search engines raise serious fairness issues under circumstances that traditionally mitigated the tendency not to apply fairness or accountability norms to private entities.

Deception and Autonomy

Some describe search engine manipulation as deception. [FN147][FN147] To date, the only governmental action signaling any intention to limit search engine manipulation was based on a consumer deception theory: a letter sent by the Federal Trade Commission (FTC) to various search engine firms recommended they clearly and conspicuously distinguish paid placements from other results. [FN148][FN148] The FTC sent the letter in response to a complaint by the organization Commercial Alert [FN149][FN149] that requested FTC investigation of whether several search engines' use of paid placements constituted unlawful deceptive advertising. [FN150][FN150] The deception argument as applied to search engines is a *1177 variant of the more general criticism of stealth marketing in the media. [FN151][FN151] Users, the argument goes, are misled “to believe

that search results are based on relevancy alone” [FN152][FN152] when in fact they are based on other grounds.

The applicability of the deception characterization, although relevant to some search engine manipulation practices, is limited. Deception is contingent upon users' expectations. In some cases, the misrepresented fact is not likely to deceive the user or the user may be indifferent to it. More importantly, users' attitudes are dynamic and sensitive to practice. With time and growing public awareness, even originally trusting or naïve users may grow more skeptical of search engine practices and hence less susceptible to deception. [FN153][FN153]

A related problem that is more fundamental than deception is the effect of search engine manipulation on the autonomy of users. Meaningful autonomy requires more than the simple absence of external constraints on an individual's ability to make a choice and act upon it. [FN154][FN154] At a minimum, autonomy requires a meaningful variety of choices, information on the relevant state of the world, the capacity to evaluate this information, and the ability to make a choice. [FN155][FN155] If A controls the window through which B sees the world and systematically exercises power over the relevant information about the world, including all of the available alternatives and options, that reaches B, then A diminishes B's autonomy. [FN156][FN156] To control informational flows in ways that shape and constrain another person's choices is to limit that person's autonomy, whether that person is deceived or not. When search engines highlight or suppress critical information, they do just that. [FN157][FN157]

***1178** How significant is the infringement of individual autonomy by search engine manipulation? Two factors play a role in answering this question: the transparency of the intervention to users and the ability of users to avoid the power of the manipulating entity. [FN158][FN158] Search engine manipulation does poorly under both factors. Due to the “black box” nature of the search algorithm [FN159][FN159] and the secrecy surrounding search engine practices, manipulation is highly opaque from the point of view of users. [FN160][FN160] All users see is the supposedly objective final results, not the intervention by the gatekeeper. [FN161][FN161] Missing results are an “unknown unknown:” users for whom certain information is suppressed do not even know that they do not know the information. [FN162][FN162]

Nor are users able to avoid the search engine's power. The relevant market, while not completely monopolistic, is dominated by a very small number of players. [FN163][FN163] As we explain below, [FN164][FN164] competition in such a market is not likely to undermine manipulation and may even promote it. Moreover, absent highly public manipulation--***1179** which search engines' notorious secrecy makes unlikely--user defection is not likely to correlate with manipulation. [FN165][FN165]

A defection option matters little when users are not aware of the manipulation or its effect. The fact that users can and do receive relevant information from other sources, like portals, social networks, traditional media, or word of mouth, supplies some opportunities to avoid--and perhaps detect--a manipulative search engine. Nevertheless, for the near future, search engines are

likely to remain a dominant source of information and one that is both opaque and irreplaceable (barring massive technological change). Thus, the autonomy-constraining effect of search engines' ability to systematically shape the information and options visible to individuals occurs under conditions that make this effect particularly worrisome.

III

Why Can't Non-Regulatory Alternatives Solve the Problem?

Despite the troubling implications of search engine manipulation, many are unconvinced that there is a problem requiring legal intervention. To the academy, the rarity of known instances of search engine manipulation, the unsympathetic nature of current claimants, and sunny optimism about technology and markets have led to skepticism about search engine regulation. [FN166][FN166] Skeptics are confident that either the market, new technology, or some combination of the two will deter search engine manipulation by “punishing” the “misbehaving” search engines. [FN167][FN167] There are, however, good reasons to doubt that either the market or technology will provide a satisfactory solution in the near future.

A. Market Discipline

Defenders of a laissez faire approach argue that legal intervention is unnecessary because market discipline already keeps search engine abuse in check and does so much more effectively than would any regulatory regime. [FN168][FN168] If a search engine tries to manipulate its results in ways that are prejudicial to or unacceptable to users, the *1180 argument goes, users will simply migrate to a competing search engine. [FN169][FN169] Fearful of losing users and market-share to competitors, search engines would avoid abusing their power. [FN170][FN170] Thus, in the late 1990s and early 2000s, competitors overtook search engines like Overture that systematically prioritized paid listings. [FN171][FN171]

The market discipline argument is based on two key premises: robust competition in the search market and users' responsiveness to abuse. Unfortunately, both of these premises are highly problematic.

Commentators tend to view the search engine industry as inherently unstable and dynamic, constantly at risk of Schumpeterian “creative destruction.” [FN172][FN172] In 2000, one of Google's founders expressed this view, commenting that “[t]he great thing about search is that we are not going to solve it any time soon. . . . If we aren't a lot better next year, we will already be forgotten.” [FN173][FN173] Google itself rose rapidly to dethrone Yahoo! and Lycos in the late 1990s. Even today, despite its overwhelming dominance in the American and global search market, Google worries about competitors. MSN and Yahoo! have a large, installed base of users, while Clusty, Ask.com, and other small search services may soon nip at Google's heels. [FN174][FN174]

While competition certainly exists, the search engine market has features that make robust and dynamic competition unlikely. [FN175][FN175] It is unclear whether search engines fall under the strict definition of a natural monopoly, [FN176][FN176] but they exhibit very similar characteristics. *1181 Search engines have very high fixed costs and a relatively low marginal cost. This, in turn, results in substantial economies of scale, creating a market with a declining average cost per unit and high barriers to entry. To understand this structure of the search engine market, consider the following:

1) The Search Engine Algorithm. The heart of a search engine and the key to its success is its search algorithm. Effective algorithms are protected by a veil of secrecy and by various intellectual property rights. [FN177][FN177] As a result, new entrants cannot easily appropriate existing algorithms. Moreover, many algorithms are trade secrets. [FN178][FN178] Unlike patents, which the patent holder must disclose and which eventually expire, [FN179][FN179] these trade secrets may never enter the public domain. Search algorithms may be analogous to the high-cost infrastructure required for entry into the utility or railroad markets.

2) Network Effects in Improving Search Responsiveness. The more searches an engine gets, the better able it is to sharpen and perfect its algorithm. [FN180][FN180] The result is that each additional user decreases the cost of a better quality service for all subsequent users. Thus, incumbents with large numbers of users enjoy substantial advantages over smaller entrants.

3) Licensing Costs. A key to competition in the search market is having a comprehensive database of searchable materials. The ability to obtain exclusive legal rights over searchable materials, however, may substantially increase the cost of obtaining and displaying this data and the metadata needed to organize it. [FN181][FN181] Exclusion rights entail licensing (or legal advice) fees, which in the aggregate may raise fixed cost substantially. Google's notable fight to obtain favorable fair use treatment for an index of books, [FN182][FN182] for example, obscures its exclusive licensing deals with audiovisual content providers.*1182 To what extent exclusion power through licensing is the industry norm is the subject of a host of legal battles taking place on various fronts. If such licenses become the industry practice, only the wealthiest players will be able to afford to develop a comprehensive database of searchable material.

4) Consumer Habit. Many searchers are accustomed to using a certain number of providers, use them relatively habitually, and are reluctant to switch, despite the existence of alternatives. Exactly how high are search engine switching costs is an empirical question that has not been satisfactorily answered to date. [FN183][FN183] Google did manage to displace Yahoo! but only after developing much better technology. [FN184][FN184] Thus, to switch a substantial number of users, a new entrant has to supply a product of significantly better quality, again, steeply raising fixed cost. [FN185][FN185] Another factor that may raise switching costs is the trend toward personalized search. [FN186][FN186] The correlation between the quality of search and the length of use in personalized search is likely to further lock users in with an existing provider.

The net results of these structural features of the general purpose search market are substantial

advantages to large incumbents and very high barriers to entry. These results suggest that the market's current *1183 composition--one dominant firm and a handful of significant players-- is likely to persist.

The assumption of users' responsiveness leading to optimal disciplining of search engines is equally problematic. Due to several characteristics of the search market, user response is not likely to be highly attuned to search engines' behavior. Moreover, it is unclear why users' preferences, even if they were free from market failures, should be the ultimate measure for evaluating and responding to many of the normative concerns described above.

One major impediment to users' responsiveness is a systematic information gap. If a user looks for a particular business and no relevant result appears or if a search engine completely corrupts its results by paid listings, users are likely to switch to a competitor. But it is difficult to see how consumers can check less drastic manipulations of results. Search tends to be a "credence good," whose value a consumer will have difficulty evaluating even after consuming it. [FN187][FN187] Often the user will have no idea that results are manipulated in a particular way. Even if we assume that a search engine abides by the FTC's guidance letter, [FN188][FN188] and always strictly separates "editorial content" and paid listings, subtler forms of manipulation could slip into the ranking algorithm. In many, if not most cases, consumers lack both the incentive and the even the ability to detect such manipulation or determine its reasons. [FN189][FN189] Given the lack of transparency of the search algorithms, search consumers simply cannot reverse engineer the hundreds of factors that go into a ranking, and they have little incentive to compare dozens of search results to assess the relative efficacy of different search engines. [FN190][FN190]

For example, imagine that after the Google-YouTube merger, Google assigns a higher "authoritativeness" rating to all YouTube videos than those on any competitor sites (such as MySpace, Vheo, Bolt, and Grouper). Such an assignment might be an entirely "objective" decision; if Google itself happens to have the highest PageRanking,*1184 it may accurately assign that rank to its new subsidiary. But consumers unaware of the deal may simply believe that the YouTube videos served at the top of the rankings pile are there merely because of "disinterested" ranking algorithms and not understand the possibility that some proprietary interest of Google (in advancing its new subsidiary's visibility) is driving the ranking. Admittedly, an entirely objective ranking mechanism may produce this result. The problem is that, given the emphasis on secrecy in the search engine business model, no one can verify that such rankings have not been manipulated or that subtler biases in favor of search engines' partners are not being worked into the search algorithm. [FN191][FN191]

Often search dynamics do not follow the classic economic model under which consumers with predetermined preferences evaluate the extent to which competing goods satisfy these preferences and behave accordingly. The paradigmatic case following this pattern would involve a "navigational" search [FN192][FN192] where a user is searching for a particular known website, or a narrow "informational" search [FN193][FN193] where a user looks for specific and

well-defined information. Yet many searches follow a very different pattern. Users conduct searches with varying degrees of prior expectations, and the sought-after information is defined with differing levels of specificity. [FN194][FN194]

Consider a search for the term “net neutrality.” There are some results that would clearly poorly satisfy the preexisting expectations of most searchers for this term. But there are also a large variety of significantly different alternative results that are not irrelevant. Note that in such cases the issue is not just the difficulty of the search engine in “mind reading” the user's exact wishes. [FN195][FN195] Initially, the user's preferences are incomplete and not clearly defined, even from the point of view of the user herself.

The implication of such open-ended searches is twofold. First, initial preferences form only a partial yardstick by which a user can evaluate search results and only a weak constraint on search engine's *1185 behavior. [FN196][FN196] Second, in such situations the particular results presented to the user are likely to affect and shape her future views and interests. Search engines, in other words, often function not as mere satisfiers of predetermined preferences, but as shapers of preferences. [FN197][FN197] When one types “net neutrality” into a Google search query screen, the vast majority of “organic” links are connected to pro-net-neutrality organizations. [FN198][FN198] There could be many reasons for this state of affairs. One might think that this is a sign that the vast majority of Internet users favor net neutrality and only a handful of companies oppose it. A more skeptical observer might find her suspicions raised by Google's own strong support for net neutrality. [FN199][FN199] There could be other explanations, such as the fact that sites whose Top Level Domain Name (TLD) ends in “.edu” are often prioritized above sites with “.com” or “.org” TLDs. How is a searcher likely to assess these results in view of his preferences when he searched for an open-ended term such as “net-neutrality”? For many users it is hard to imagine in such a case a clear process of judgment in view of preexisting preferences.

Even users who engage in relatively open-ended searches without concrete preexisting preferences may have preferences about their preferences or about the procedure in which their preferences are being shaped. [FN200][FN200] Yet evaluating the performance of a search engine on the basis of such second-order preferences is likely to prove difficult. In most cases it would require access to information that is not readily available on the surface of the search results. Such information about the way the search results were shaped would, rather, be buried in the black box of the search algorithm and kept away from public view.

Another reason that makes market forces an unreliable means for disciplining search engines is the incomplete overlap between users' preferences and the social values underlying the concerns about search engine manipulation. This claim can be cast in the economic language of externalities. Certain manipulations of results may have little effect on users or even leave users completely indifferent, yet impose substantial cost on others. C. E. Baker's famous “catalog” of *1186 externalities demonstrates the various ways in which this dynamics plays out in the context of traditional media. [FN201][FN201] At least some of those typical media externalities seem likely to occur in the different context of search engines.

The externalities formulation, however, fails to capture the full extent of the misfit between some of the normative concerns described above and an exclusive reliance on consumer preferences for disciplining search engines. Whether or not one can point at a substantial cost not internalized by users, a lack of significant response by users is not necessarily sufficient to allay concerns about fairness and democratic discourse. [FN202][FN202] Think, for example, about an exclusion of a commercial website that enjoys only limited popularity and is easily replaceable from the point of view of most users. The fact that users will be relatively indifferent to such exclusion, simply does not answer the concerns about fairness and the arbitrary exercise of (private) power. Similarly, even if it turns out that users' behavior demonstrates no concern about possible biases in favor of content supplied by the search engine allies, this does not necessarily dispel the concerns about a degrading effect that such behavior may have on the public sphere or public discourse. Satisfying user preference is an important interest that search engines should be able to pursue, but these preferences can not always be counted on to guarantee other social values.

In sum, market discipline imposed by users is certainly not irrelevant. It is likely to have some effect in curbing the more blatant and radical forms of search engine manipulation. Given the combination of a centralized market structure and the severe limitations on users' responsiveness to manipulation, however, it is bound to be an insufficient constraint.

B. The Technological Fix: Personalized Search

Recently, the belief that market discipline would solve the problems associated with search engine manipulation was supplemented by claims that technological developments would take care of any remaining concerns. Eric Goldman, for example, argues that the eventual personalization of search promises another bulwark against search engine bias and manipulation. [FN203][FN203] Personalized search, which is predicted to be the future of search engines, will produce search results that are custom-tailored to each searcher's attributes and interests.*1187 [FN204][FN204] Because personalized search will no longer be limited to one-size-fits-all results, there would be multiple rankings and multiple winners per query. Indexed entities would no longer be locked into a zero-sum game, and searchers with minority interests will no longer suffer from suboptimal results. [FN205][FN205]

Will technology fill up the gaps left by the market and solve the problems of search engine manipulation? In one respect, Goldman is right. The rise of personalized search might be considered the "bright side" of a search engine's untrammled ability to manipulate rankings. Such innovations are likely to increase the accuracy of search and its value for users. Moreover, personalized search may also alleviate problems of universal structural bias against minority interests that are inherent in a one-size fits all system. Thus Goldman predicts that "[t]echnological innovation will moot search engine bias." [FN206][FN206]

In regard to targeted manipulation of search results, however, the picture is very different. In that context, personalized search, far from solving the problem, seems to increase the stakes of

manipulation and the temptation to engage in it. The logic of this prediction is simple. Personalized search targeted at the specific characteristics of users makes possible more finely tuned manipulation and increases the potential value of each intervention in the search results. The prospects created by customized search are analogous to those of targeted advertising based on profiling and categorization of the target audience. [FN207][FN207] Instead of crude manipulations pointed at the entire group *1188 of users, search results for the same keyword could be shaped differently based on the profile of the user. This would increase the effectiveness and the potential value of each manipulation. Just as the sponsored link is likely to be more cost-effective when targeted at a relevant segment of users, so is the manipulation of the search results. Instead of one zero-sum game, indexed entities would be locked into a long series of zero-sum games, as numerous as the profiling and categorization schemes employed by the search engine. The search engine would possess a more finely tuned and more valuable power to shape the results visible to various users, and as a consequence would be subject to stronger internal temptations and external inducements or pressures to use this power. Add to this the limitations on users' ability to identify, understand, and check instances of manipulation, described in the previous section, and the likely result is more cases of troubling targeted intervention by search engines in their results. It is hard to see how the technological fix is any more likely to remedy the problem than market discipline.

IV

Potential Obstacles to Search Engine Regulation

A. Will the First Amendment Bar Effective Regulation?

Faced with the prospect of legal regulation, search engines are likely to claim First Amendment protection. Recently two district courts accepted such claims and immunized Google from liability on the grounds that search engine rankings are constitutionally protected speech. [FN208][FN208] In *Langdon v. Google*, a district court relied on *Miami Herald Publishing Co. v. Tornillo* [FN209][FN209] to find that plaintiff's insistence that several search engines must carry his ads and "honestly" rank his websites would be prohibited compelled speech. [FN210][FN210] The Search King court held that Google's rankings are "opinions of the significance of particular web sites as they correspond to a search query" and that they are therefore "entitled to 'full constitutional protection.'" [FN211][FN211] Rather than relying on a compelled speech rationale, the court based its decision on *Milkovich v. Lorain Journal Co.*, in which the United States Supreme *1189 Court immunized from defamation liability a "statement of opinion relating to matters of public concern which does not contain a provably false factual connotation." [FN212][FN212] Citing a Tenth Circuit decision that extended *Milkovich* to protect as an opinion an unfavorable review of the value of a school district's bonds by a financial rating service, [FN213][FN213] the court took an additional step. It found that the same rule protected under the First Amendment as an opinion Google's rankings and barred liability for tortious interference with contractual relations. [FN214][FN214]

