The Value Implications of the Practice of Paid Search

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In his book *Technopoly*, Neil Postman remarked how "we are surrounded by the wondrous effects of machines and are encouraged to ignore the ideas embedded in them."[2] It has been the goal of many scholars of technology to remove these blinders and critically explore the ideological biases embedded within our technologies and technical systems. Such scholars argue that technologies have, in varying degrees, certain social, political, and epistemological biases; they tend to promote certain ideologies while obscuring others. Recently attention has been paid to how information technologies also have *ethical* and *value* biases.

Our knowledge tools – the particular techniques and technologies to assist with the collection, organization, classification and retrieval of information – are not immune to such ideological biases. Given the dominant status search engines have gained as the contemporary knowledge tool, it is crucial to consider the social, political and ethical consequences of our reliance on them for organizing, distributing and accessing information. In keeping with the theme of this special issue, it is important to consider specifically the value implications of the growing practice of "paid search" within the search engine industry. For simplicity, I will refer to the two practices of "paid inclusion" and "paid placement" collectively as "paid search".

Introna and Nissenbaum's seminal study, "Shaping the Web: Why the Politics of Search Engines Matter," was among the first to challenge the neutrality of search engines, revealing how they "systematically exclude certain sites, and certain types of sites, in favor of others, systematically giving prominence to some at the expense of others."[3] While Introna and Nissenbaum's article acknowledges some potential implications of paid search, they could not have anticipated the prominence that paid search has in today's search engine marketplace. This brief article extends Introna and Nissenbaum's insights by speculating on the implications of paid search, focusing on three interrelated values of moral and ethical import: *freedom from bias*, *privacy*, and *trust*. The article will close with a call to action for the search engine and paid search community to engage in value-sensitive design to ensure such values are protected in the conception and design of these important and powerful knowledge tools, rather than being retrofitted after completion.

Freedom from Bias
When a user looking for information on a particular topic is directed to one website rather than another – assuming that the two sites are equivalent in quality and relevance to the search query submitted – search engine bias emerges. While there are several potential sources for search engine bias, the practice of paid search is a unique example of the purposeful introduction of bias into search results by many search engine providers. Such practice encourages online consumers to click on web pages listed prominently in

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[2] Postman (1992), p. 94.
[3] Introna & Nissenbaum (2000), p. 169.

the results, yet not *necessarily* the most relevant to their search query. As Eszter Hargittai warns, "The concern is that search engines that are guided by profit motives may point people away from the most relevant and best quality sites in favor of those that have paid the highest bids for placement on the results page regardless of their quality and specific relevance to the search query."[4]

Friedman and Nissenbaum argue that biased computer systems act as "instruments of injustice"[5] when they "*systematically* and *unfairly discriminate[s]* against certain individuals or groups of individuals in favor of others."[6] While we must be careful not to automatically assume that just because a listing has been paid for that it is not relevant to one's search query, if instances of paid search are found to be systematic and unfair, then the resulting bias is of moral and ethical importance. Two recent papers have suggested the possible existence of such systematic unfairness; see Chandler (2002) and Diaz (2005). In such cases, *freedom from bias* becomes a value that "should be counted among the select set of criteria—including reliability, accuracy, and efficiency—according to which the quality of systems in use should be judged."[7]

Privacy
Privacy, in the most general sense, refers to the right or entitlement of an individual to determine what information about herself can be shared with others. Philosophical debates about the definition and defensibility of a right to privacy persist, but most theorists acknowledge that privacy, in some form, is a meaningful and valuable concept, especially within a liberal democracy. The emergence of new information technologies often provide challenges to the value of privacy; search engines, and the practice of paid search, are no exception.

The practice of paid search has motivated a drive for search engine companies to track users' search habits. Search providers can provide advertisers with far more comprehensive and sophisticated consumer profiles if it maintains databases of users' search histories. Increasingly, these histories are being matched up with individual searchers in order to provide individually targeted paid search results and related advertising. While the increased personalization of search engine results and targeting of advertising or paid search results might prove beneficial for searchers, such practices threaten the value of privacy.

While many of our day-to-day habits – such as using credit cards, ATMs, cell phones, or automated toll collection systems – leave countless "virtual footprints" of our activities, the ability of search engines to track our histories goes one step further by providing "an excellent source of insight into what someone is *thinking*, not just what that person is doing."[8] Information about private intellectual activity has long been regarded as fundamentally private in our culture, both for reasons related to individual dignity and because of the powerful chilling effect that disclosure of intellectual preferences would produce. Consequently, the presence of paid search brings with it serious privacy concerns by contributing to the trend of tracking users' search histories and their online intellectual activities.

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[4] Hargittai (2004), p. 9.
[5] Friedman & Nissenbaum (1996), p. 345.
[6] Ibid., p. 332.
[7] Ibid., p. 345-346.
[8] Hinman (2005), p. 23.

Trust
Concerns of systematic and unfair search engine bias, as well as the privacy threat from tracking personal search histories, affect whether users can have *trust* in search engines. Trust involves the willingness to accept one person's power to affect another; it involves having one person thinking that the other is benevolent, competent, good, or honest. Trust is a key to the promise of our democratic liberal society: "Trust facilitates cooperation and success within civil and political society; it enriches individuals' lives by encouraging activity, boldness, adventure, and creativity, and by enriching the scope of individuals' relationships with others."[9]

Trust in our knowledge tools – including our search engines – is a key ingredient for this vision of society. Their potential to enhance access to knowledge, enliven political discourse, spur scientific discovery and innovation, and drive commerce depend on users' trust in these technologies. Trust in search engines is predicated on the belief that the system will provide fair, accurate, and unbiased results to one's query. Currently, trust in search engines is quite high among users: 68% of users view search engines as a fair and unbiased source of information;[10] users chose links from the first page of results nearly 50 percent of the time because they seemingly trust search engines to present only the best or most accurate results first.[11]

And yet, research reveals that users know little about how search engines operate, or about the marketing relationships that influence how search engines perform their searches and how results are presented. Many searchers largely fail to notice or understand the difference between paid search and organic search results presented to them. Further, when users are made aware of the practice of paid search, their trust in search engines falls, bringing the accuracy and credibility of first page links into doubt. In one study, one-third of the users indicated they would be "less likely" to use a search engine if they discovered that Websites were paying for placement within the search results.

Until users are better informed about the practice of paid search, search engines do a better job of disclosing the presence of such results, and search engine privacy policies are clear and unambiguous about access to the personal information collected, users' trust in search engines will be tenuous. Ensuring trust in search engines is not only vital to the economic interests of the search engine companies, but also the fulfillment of the role of search engines as the contemporary knowledge tools of our society.

Conclusion: Protecting Values in Search Engine Design
The growing practice of paid search, while potentially benefiting web searchers, also implicates certain moral and ethical values considered vital to sustaining a democratic society, such as freedom from bias, privacy and trust. Protecting these values, however, is not necessarily incompatible with the practice of paid search; a proper balance between the goals of paid search and the protection of moral & ethical values can be found. As Saracevic has noted, "The success or failure of any interactive system and technology is contingent on the extent to which user issues, the human factors, are addressed right from the beginning to the very end, right from theory, conceptualization, and design process to development, evaluation, and to provision of services."[12] Following Saracevic's suggestion, attention to moral and ethical values, such as freedom

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[9] Nissenbaum (2001), p. 642.

[10] Fallows (2005), p. 15.

[11] Marable (2003), p. 38.

[12] Quoted in Jansen, Spink & Saracevic (2000), p. 209.

from bias, privacy and trust, must become integral to the conception, design, and implementation of paid search practices, not merely retrofitted after completion and deployment. By engaging in value-sensitive design, we can ensure a place for these values as criteria by which we judge the quality and acceptability of the practice of paid search.

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