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Do you "google"? Understanding search engine use beyond the hype

by Eszter Hargittai

Abstract

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Much anecdotal evidence suggests that Google is the most popular search engine. However, such claims are rarely backed up by data. The reasons for this are manifold, including the difficulty in measuring search engine popularity and the multiple ways in which the concept can be understood. Here, I discuss the sources of confusion related to search engine popularity. It is problematic to make unfounded assumptions about general users' search engine choices because by doing so we exclude a large number of people from our discussions about systems development and our understanding of how the average user finds information online.

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Introduction

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Thomas Friedman in a *New York Times* column last year asked: "Is Google God?" and explored the role of the search engine in enabling Web users all over the world to access information anytime anywhere about anything (Friedman, 2003). Much anecdotal evidence in the popular press suggests that Google is the most popular search engine and accounts often assume that every Web user knows about and uses Google [1]. Among users, referring to Google has become the high-culture status symbol of Web use. When presented with an information-seeking task, the supposed savvy searcher quickly suggests the use of Google. However, just like simply referring to the latest opera at the Met should not be equated with expertise in the genre, a

throwaway comment about Google should not make us think that people actually use Google or even if they do, that they know how to do so effectively.

There are few estimates of relative search engine popularity, and these estimates often differ. Here, I explore the sources of confusion regarding the measurement of relative search engine popularity and why it is faulty to assume always that everyone knows about and uses Google. By focusing too much on one search engine and assuming the extent of its reach across the Web—user population, we exclude large portions of users from our discussions about how people find information online and about systems development.



Measuring search engine popularity

Like many kinds of statistics, search engine popularity is very hard to measure reliably, and interpretations of available data vary. Some of the discrepancies in estimates are due to the different sources of the data. Some reports look at global search engine popularity whereas others present figures for United States users only. Some focus on home users while others consider both home and work use. These differences are not necessarily problematic as long as the details of the coverage area are included with presentation of the data.

More confusing is the difference in how popularity is understood. Popularity can mean, at the most basic level, two very distinct things: a) percentage of users who turn to a search engine for their search needs; and, b) percentage of all search queries that are run on a particular search engine. Depending on one's interest, this distinction is important. The two measures are not interchangeable. It is highly likely that some users account for a disproportionately large number of all search queries performed on the Web. Users who spend more time online and who turn to search engines more during their Web use are likely to account for much more of search engine traffic than users who spend less time on the Web or who do not use search engines often. If we are interested in the number of distinct individuals who are exposed to a search engine, then the former measure will be more informative. If we want to know which search engines process the most queries regardless of who is doing the searching, then the latter statistic will contain the answer.

Undoubtedly, search engine companies measure their own traffic. However, such data are kept confidential. Moreover, any one search engine company would not have the figures of other search engine companies' traffic, so it is not possible to rely on the search engine companies themselves for information about their relative popularity. Third-party companies such as Nielsen/NetRatings and Jupiter Media Metrix provide data to understand relative popularity measured by audience reach. Audience reach in these cases is defined as the number of unique visitors to a search engine in a given time span.

According to such measures, Google has a 30 percent reach with Yahoo and MSN following close behind (Sullivan, 2003). Even if this does mean that Google is the most popular search

engine, 30 percent of users is far from the majority, a fact one would be hard-pressed to know from the rhetorical focus on Google's popularity. Some may argue that since Google powers Yahoo's search engine, Yahoo's popularity boosts Google's numbers. This leads me to reflect on another important point rarely raised during discussions of search engine popularity and use, namely, the difference between a search engine and a Web site that features results of a search engine.



Web sites versus search engines

Little attention is paid to the distinction between the use of a search engine on the search engine's own Web site (e.g. Google at google.com) versus a visit to a portal site that allows users to perform searches using the search engine of another company (e.g. use of Google's search engine at yahoo.com). Portal sites often contract with other companies to perform their searches. The Google search engine powers more than just the searches performed at google.com. Rather, users of the search form at yahoo.com, go.com and myway.com — just to name a few — all get results from Google's search engine in response to their queries (at the time of this writing). Thus, searches performed on these sites contribute to the percentage of searches performed by Google (as opposed to on google.com). This distinction, again, is an important one because of the following considerations.

Search results on google.com are presented in a different format from presentation on other sites. See [Figure 1](#) for a screen shot of a search on taxes at google.com.

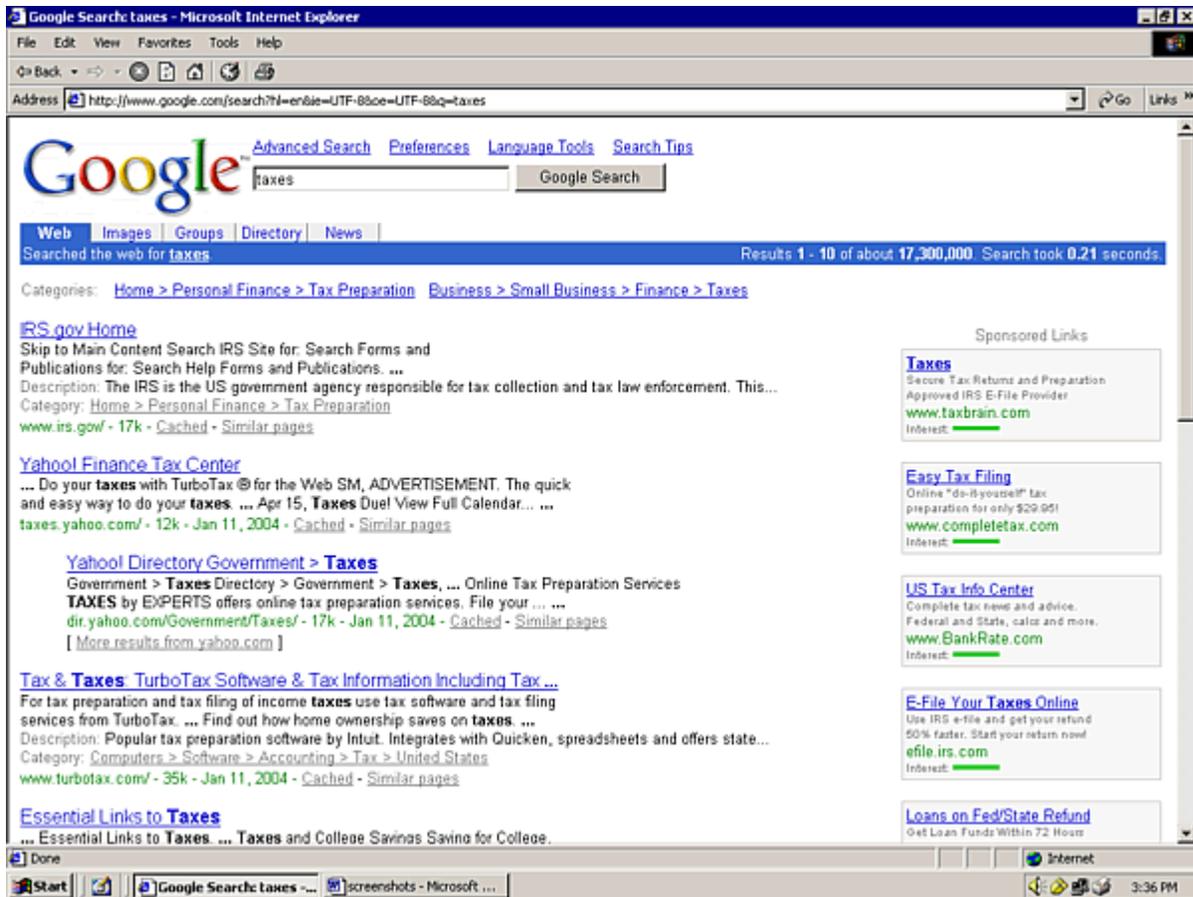


Figure 1: Google's results for a search on taxes.

The user does not encounter the exact same results on other sites powered by Google's search technology. Yahoo, for example, inserts a list of its own sponsored recommendations before displaying results from the search engine's database. See [Figure 2](#) for a screen shot of a search on taxes at yahoo.com.



Figure 2: Results for a search on taxes performed at yahoo.com.

MyWay places AdWord items — that is, pay-per-click content — in the main body of results ahead of the regular Google results list (see [Figure 3](#)).



Figure 3: Results for a search on taxes performed at myway.com, which is powered by Google.

AOL also adds its own content before listing Google’s results. Although Google’s search engine may be powering searches on all of these sites, the results when taken as a whole do not look at all the same. All of the screen shots were taken on a 17–inch screen. Note the relative position of the link to the IRS’s Web site on the three screen shots. While it is on the top section of the screen for the search performed at google.com, it is halfway down the screen for the search performed at yahoo.com and it is not at all visible for the search performed at myway.com. These things make a difference. Although to some of us it may seem trivial to find the Web site of the Internal Revenue Service, this is by no means the case for the average user (Hargittai, 2003b).

Although Google’s search engine may be powering all of these searches, it would be problematic to argue that the results are interchangeable. Google’s search engine may be more popular by being used on all of these sites, but its use on the different sites leads to different results not because Google itself is returning different links, but because its results are being mixed with other content depending on the hosting site’s own preferences.

Insofar as layout of results influences what links people click, these distinctions are important to note. Research has shown that most users will not click through to the second page of results after running a search (Spink *et al.*, 2002). This suggests that users’ actions on sites where additional content is inserted above the regular results may be different because different types of

links get prominence. If one of the reasons for Google's popularity is its clear layout, then seeing its results in a different design environment is an important point to consider. Moreover, if its popularity is due to the quality of its listings, then knowing that other sites insert other hits before Google's results is also likely to make it less useful in some cases.



Conclusion

Instead of focusing so much rhetoric on the popularity of one proprietary technology, it would be better to focus on users' actual experiences online. Although Google is a very powerful and helpful service, many people do not use it, do not know about it, or even if they use it they may not know how to do so well (Hargittai, 2003a). Those who study technology use and those who contribute to new systems development must remember that average users are different from expert user populations. I like Google as much as many other Google users. However, we should not let our own experiences taint our view of millions of people's Web experiences that do not include a visit to google.com or the use of an advanced search query on a search engine, ever. 

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Note

1. For some recent instances, see Bowen, 2003; Gaither, 2003; Keefe, 2003.

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