

Essential Tips for Searching the Web

Michael L. Kent

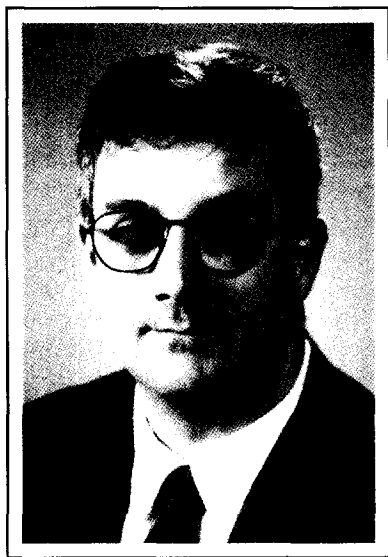
The Internet is fast becoming *the* research tool of choice for busy professionals in both public relations and the mass media. As Ross and Middleberg point out in their most recent study of "Media in Cyberspace," use of the Web by journalists for information gathering and other purposes is nearly universal now — with 98% on-line in 1998 compared with 63% in 1997 (1999a, p. 2). The ubiquity of the Web also means that public relations professionals need to be more aware of what information about their organization resides on the Web — since journalists *will* seek it out.

It is because of the presence of the new information technologies and their penetration into the daily life of citizens that public relations professionals must learn to use them more effectively. It is also incumbent upon public relations teachers to teach students to more effectively use the Web if

they are to be prepared to conduct research and practice effective public relations.

In general, the research suggests that most Web users — students, teachers, professionals, laborers, etc. — are not very good at searching the Web. Indeed, in a recent study of EXCITE users by Spink, Bateman, and Jansen, the lack of understanding of the Internet and new Web search technology was underscored when the authors discovered that less than five percent of the users surveyed knew how to conduct "effective" Web searches (1999, p. 123). The purpose of this article is to ensure that public relations professionals and teachers, as leaders in the field, are among the five percent who can conduct effective searches.

Of course, one of the reasons that most users of the Web do not know how to search it very well is because of its relative youth and because of how quickly the technology of the Web changes. Indeed, before the Internet, citizens of all ages had ample time to adjust to each technological revolution. But, as FitzGerald and Spagnolia point out, "Internet traffic doubles every 100 days. While it took radio 38 years to establish 50 million listeners and television 13 years to attract 50 million viewers, in four years the internet acquired 50 million users" (1999, p. 12). The rapid and global adoption of the Web has left many behind — especially those who graduated more than half-a-dozen years ago when the Web really took off. Many public relations professionals, including teachers and practitioners, have not had the time to learn the intricacies of Webbed technology yet. This article tries to bring public relations practitioners and teachers up to speed by discussing new Web search technology, why it is important to public relations professionals, and how to use the Web more effectively.



Michael L. Kent

For public relations professionals to manage the messages and information stored on the Web requires that they are able to find it. The search engine is the means by which the vast storehouse of Webbed information is obtained. As Notess suggests, "Web search engines...have proven remarkably useful at tracking down information located on one of the hundreds of millions of Web pages scattered around the world" (Notess, 1999, p. 63). Indeed, a recent study commissioned by Inktomi suggests that there are now more than one billion unique Web pages (Dunn, 2000). But search engines are useful only if users know how to use them effectively. Since the Web seems to be with us for some time into the foreseeable future, it is incumbent upon public relations practitioners and scholars to learn how to get the most from Internet technology (search engines). Three issues are important to public relations teachers and professionals: the use of meta search engines, the use of Boolean logic, and the use of key words.

Meta Search Engines

All would agree that advertising plays a major role in Western culture, if not to persuade us to buy products or services then at least to inform us of trends, or what new products and services are available to meet heretofore unmet needs. Advertising even influences the research we conduct. Most of us, for example, have seen the ubiquitous advertisements on television for Lycos ("Lycos, go get it..."). Many have undoubtedly tried Lycos because

The "meta" in meta search engines comes from their capacity to scour 2-14 or more search sites all at the same time.

of those advertisements. Indeed, users of different search engines often learn about them from colleagues, who report how they successfully obtained information from one search engine or another, or simply use the browser that their computer defaults to. What few users of the Web currently know about are the new generation of search engines called "meta" (or serial) search engines.

Unlike the more well-known search engines (AltaVista, Lycos, Yahoo) which catalog the Web gathering, sorting, organizing, and storing, information and sites — some even using human cataloguers — meta search engines do not actually have their own database to search. Meta search engines

search *other* databases and then return the results to the user in an organized fashion. The "meta" in meta search engines comes from their capacity to scour 2-14 or more search sites all at the same time. Meta search engines exclude redundant information and sort results for users. Three of the better meta search engines are: <www.ixQuick.com>, <www.RedESearch.com>, and <www.Google.com> (Google is not really a meta search engine but because of its strengths is included here). Many of the best meta-search engines eliminate "redundant" hits so that users do not have to contend with the same site coming up 25 times in a row, and also allow users to select which databases they want searched.

Many Web users do not realize that the average single-database search engine only searches a small percentage of the Web at any given time — only 2-16% (O'Reilly, 2000). Additionally, search engine databases must sometimes be taken offline for updating, reducing the availability of information. As Notess explains,

Not only do none of the search engines cover the entire Web, but at times, they do not even search their entire database. HotBot and the other search engines using an Inktomi database may not deliver the same results when Inktomi has some of their computers down for backup or other maintenance, effectively taking part of the database offline. AltaVista times out especially on complex fielded searches and only returns partial results. In both cases, the entire database was not available for searching. (1999, p. 64)

Since meta search engines search from two to five times as many pages in a single search, up to 38% of the Web (O'Reilly, 2000), the usefulness of meta search engines is clear. Meta search engines are likely to find more of the information you are looking for, and are also able to save you time by eliminating redundancy and erroneous information.

In order for public relations professionals to take advantage of search engine technology, it is useful to understand their strengths and limitations. First, many meta search engines allow users to select which databases they wish to use in their searches — anywhere from 1-14 or more may be selected. Second, the logic used by many meta search engines allows users more options when conducting searches. And third, many of the meta search sites are "cleaner," and free of the constant advertisements and flashing windows present on the leading commercial search sites (AltaVista, Lycos, Yahoo, etc.). Google and SurfWax, for example, currently have no advertisements on their sites. Moreover, most meta search engines allow users to select and search only the databases that they have found to be most useful. Meta search engines'

default setting is to search all their databases at the same time, so there is no need for users to make any choices before using a meta search engine. For an excellent review of search engines, including meta search engines, and their strengths and limitations, visit the Search IQ Web site at <www.searchiq.com/directory/>.

Boolean and Other Logical Modifiers

A second issue of importance for public relations professionals' use of the World Wide Web is the use of Boolean logic to more effectively conduct searches. Boolean logic allows users to limit search parameters to specific terms or phrases, and also, to exclude irrelevant information from searches (cf., Corbitt, 1999; Uttenweiller, 1999). According to Corbitt,

The default behavior in most search engines, unless

you tell them differently, is that you will get matches on the words in your search as though they were separated by an OR operator. In other words, if you enter money laundering most search engines assume that you mean money or laundering so anything with money or laundering will come up in your match. What most people want is an implicit "and" between the words, money and laundering. (1999, p. 52)

The logical operators and other search features used by ten top search engines are summarized in table 1.

Most Web sites now allow for the use of Boolean logical operators in searches (see table 1). Boolean logic allows users to limit searches to specific phrases rather than simply key words, to exclude irrelevant terms or phrases from searches, and to conduct key word searches using "AND/OR/NOT" phrases.

Table 1
Search Engine Features

Search Engine	Boolean Logic	Phrase	Truncation	Case Sensitive	Nested	Other
QueryServer	AND, OR, NOT	Yes "..."	Wildcards: use "*"term" or "term*"	No	Yes (terms)	"Match" and "Result Clustering" features
IxQuick	AND (or +), NOT (or -), AND NOT, ANDNOT	Yes "..."	Wildcards: use "*"term" or "term*"	Supports case sensitive searching	Yes (terms)	Opens links in new windows
C4	AND, OR, NOT	Yes "..."	No	No	No	Customizable
InFind	Yes, but does not parse logic for each search engine it searches.	Depends	Depends	Depends	Depends	No
Yahoo	use + for AND; - for NOT; t: (title); u: (URL)	Yes "..."	Wildcards: use "*"term" or "term*"	No	No	Customizable; may specify Usenet, dates, etc.
Google	Automatic AND; no OR; for NOT use -	Yes "..."	No	No	No	"I'm Feeling Lucky" and "Cached" features
BrightGate	AND (+), OR, AND NOT (-)	Yes "..."	No	No	Yes (terms)	Customizable
Mamma	Automatic AND; use +/- for AND/NOT	Yes "..."	No	No	No	Customizable and may search in phrase mode
RedESearch	Yes, but does not parse logic for each search engine it searches.	Yes "..."	Depends	Depends	Depends	No
AltaVista	AND (&), OR (!), AND NOT (!)	Yes "..."	No	Yes	Yes (terms)	Customizable; may specify language and/or dates to search

Boolean Logic refers to the use of AND, OR, NOT, etc. to limit searches.

Phrase Searches instruct the search engines to search for the exact words enclosed in the quotes.

Truncation instructs search engines to search for prefixes or suffixes.

Nested Searches allow for more complex searches.

AND, OR, and NOT, are used with other key words in searches to clearly delineate what a user is looking for. A search for "crisis AND communication" for example, would only return hits for Web sites that contain both terms (196,697 of them). A search for "crisis OR communication," (the default of many search engines), however, would return hits for pages containing either term (7,992,925). Finally, a search for "crisis NOT communication" would only return hits for sites that are about crisis not involving communication issues (1,253,421). When conducting searches, the plus (+) and minus (-) symbols can be substituted for the words "AND" and "NOT" in many cases. However, not all search engines allow for the use of Boolean logic and many do not support all three terms (see table 1). As will be explained below, a search for "crisis (AND/OR/NOT) communication" would require many more key terms to provide useful information. Hundreds of thousands/millions of hits are obviously too many.

A final logical modifier worth understanding is the use of quotation marks to delineate a "phrase" search. In most search engines, when words are surrounded by quotation marks, the words are searched for as self-contained phrases rather than separate terms. For example, a search for Edward Bernays (without quotation marks) will yield

Searches that once took hours can be managed in a few minutes with excellent results.

2,123,207 sites that contain both the names Edward and Bernays (or Edward or Bernays depending upon the search engine). Whereas, a search for "Edward Bernays" (with quotation marks) will only return 491 hits for sites that contain both names side-by-side, as a phrase, rather than sites that simply have both names somewhere on them. To further refine the search, the "L" could be added to Bernays' name ("Edward L. Bernays") returning 483 references to those sites that contain "Edward L. Bernays." Note also that while most search engines are case insensitive, many require Boolean operators to be capitalized — hence the uppercase use in the examples here.

Through the use of a few logical operators like "phrase" searches, AND +, OR, NOT - ("AND NOT," and "ANDNOT" sometimes), searches can be tailored to return more precise results and to exclude irrelevant information. Searches that once took hours and often ended in frustration can be man-

aged in a few minutes with excellent results.

An example of how logical operators can be used effectively in a search can be illustrated by a simple information search. If the words "Microsoft lawsuit" are typed into Google (without the quote marks), 48,100 sources are indicated. (Google's default, unlike some search engines, is to insert an "and" between terms). By adding the additional search term of "antitrust" to the search, the results are narrowed down to 9,650. And by adding quote marks to the words we convert our search to a phrase search ("Microsoft antitrust lawsuit"), instructing the search engine to find that exact phrase. Google now returns a more modest 108 sites, locating only pages with all three terms appearing as a phrase.

The NOT (-) logical operator is also useful for constraining a search. For example, NOT could be used to locate legal issues pending against Microsoft besides the justice department's antitrust case. Our search could be modified by adding additional logical phrases such as "-justice -department" (e.g.: "Microsoft antitrust lawsuit" -justice -department), which returns 43 results related to Microsoft's legal issues besides the current justice department antitrust case. The final area of search engine technology worth understanding is the importance of using multiple key words.

Key Words

One of the mistakes that many individuals make when conducting online searches is that they do not use enough key words. As Corbitt explains, users should use plenty of keywords because "Each keyword cuts down the number of erroneous matches and if you use enough you can cut out almost all of the irrelevant stuff" (1999, p. 52). Many information professionals suggest that it may be necessary to use as many as 12 key terms to sufficiently limit a search to a manageable amount of information.

Try the following example for an illustration of the value of multiple key words. A professional interested in a career move wants to identify the "top 100 family friendly companies in the U.S." Putting "family friendly companies" into Google yields 84,100 results. Putting in "top 100 family friendly companies" brings the results down to 27,800. Finally, adding a logical operator (quote marks) to "family friendly companies" (top 100 "family friendly companies") brings the results down to 50 sites. The second hit returned by Google tells us that "Working Mother magazine" has such a list. Finally, by entering "Working Mother magazine" (with or without quotes) into Google and hitting the "I'm feeling lucky" button

(used for just this purpose — to go to organizational Web sites) we are taken straight to the home page for Working Mother magazine. There, we find links to their annual list of family friendly companies. The combination of a meta search engine, multiple key words, and Boolean logic yields very effective results.

Meta search engines, key word use, and the use of Boolean logic are three essential tools for effective public relations research on the Web. They are also tools that should be explained to students and technicians who will be using the Web for many years to come. Until such time as search engine logic becomes as transparent as the search itself, and until it becomes possible for a single search engine to effectively scour the entire Web (which is not likely to happen in the near future), public relations professionals will be better served by incorporating Boolean logic into their searches and by using the new generation of search engines. **PRQ**

Bibliography

- Corbitt, T. (1999). Searching the net. *Management Accounting-London*. 77(8), 52-53.
- Dunn, A. (2000, January 20). It's a very wide Web: 1 billion pages worth. *Los Angeles Times*, business, part c, page 7, financial desk.
- FitzGerald, Suzanne Sparks and Spagnolia, Nicole (1999). Four predictions for PR practitioners in the new millennium. *Public Relations Quarterly* 44(3), 12-14.
- McCollum, K. (1998, November 25). High-school students use the Web intelligently for research, survey finds. *The Chronicle of Higher Education Online*.
- Notess, G. R. (1999). On-the-fly search engine analysis. *Online*, 23(5), 63-66.
- O'Reilly, F. (2000). Where the guides are lost too: Searching: Finbarr O'Reilly on the growing difficulty of finding what you want on the Web. *The Irish Times*, City Edition, Computimes, p. 12.
- Ross S. S. & Middleberg, D. (1999a). *Media in Cyberspace Study 1998*: [Fifth Annual National Survey]. NY: Middleberg and Associates. Contact Middleberg and Associates at <<http://www.middleberg.com>> for a copy of this report (free to academicians).
- Ross S. S. & Middleberg, D. (1999b). *Broadcast Media in Cyberspace Study: 1999* [First Annual Survey]. Middleberg and Associates. Contact Middleberg and Associates at <<http://www.middleberg.com>> for a copy of this report (free to academicians).
- Spink, A., Bateman, J., & Jansen, B. J. (1999). Searching the Web: A survey of EXCITE users. *Internet Research: Electronic Networking Applications and Policy*, 9(2), 117-128.
- Uttenweiler, W. L. (1999). Working the Web. *Security Management*. 43(10), 75-78.

Michael Kent teaches introductory and advanced courses in public relations at SUNY College, Fredonia, NY. He received his Ph.D. from Purdue University in Communication. Kent conducts research in international and Webbed public relations.

Does Your Organization's Gene Pool Need to Make a Bigger Splash? Workplace Diversity and its Impact on Creativity

By *Sophie Ann Terrisse, CEO*

The lifeblood of any communications agency is its capacity for creativity and innovation. Peter Drucker defines innovation as "change that creates a new dimension of performance." At STC Associates, we believe that diversity is the structural linchpin that moves us beyond the ordinary and gives us a competitive edge.

However, our definition of diversity is not necessarily mainstream. To many, diversity is only achieved by increasing the number of women or minorities in an organization. While both women and "minorities" figure significantly in the demographic composition of our agency, what we advocate is the power of intellectual diversity. With this in mind, we've built a team that mirrors a broad range of professional, personal and cultural experiences, and we make a concerted effort to direct this vast resource in new and dynamic ways.

The unique combination of viewpoints this eclectic workforce brings to our business is a powerful arsenal that allows us to address both client and agency objectives with fresh, relevant and often profound perspectives.

Creative Cocktail of Abilities

As we move toward a global economy, a broader cultural perspective is essential. Our team hails from different parts of the world, Texas, Martinique, New Orleans, Paris, Manhattan and Madrid just to name a few. They represent a compendium of interests in politics, the arts, manufacturing, philanthropy, agriculture, religion and law among others. Some just arrived in America, while others have roots dating back fourteen generations.

Professionally, members of the STC team come from similarly divergent fields of training. I, myself, formerly embarked on a career path teaching blind students while completing law school in France. Our lead designer worked

as an architect after earning a PhD, and our chief operating officer spent 13 years as a corporate attorney.

Consequently, we assign teams to client projects in a relatively unorthodox fashion. We do not limit our team members to task-specific or departmentally rigid criteria. Rather, we look at the parameters of each account and respond by allocating a "creative cocktail" of internal capabilities that will most effectively and innovatively address the challenge at hand.

Whether a client comes to us for public relations support, design work or new media expertise, we assemble an account team comprised of individuals from a variety of disciplines. Our goal is to drive exceptional performance and results. We achieve this by assigning different members of our organization to each client project.

Newly minted by management gurus as "multidisciplinary teaming," we believe this approach lends itself to outstanding client service. Each client benefits from the extraordinary breadth of knowledge and divergent points of view brought by each team member, giving them unique solutions to both their mundane and complex problems.

At STC, we believe diversity needs to be viewed in this broader context if we are to fully reap its rewards. Based on our own experience, we urge others to take a more enlightened view as well. **PRQ**

Sophie Ann Terrisse is CEO, STC Associates, a full-service agency and consultancy specializing in IM communications including image management, integrated marketing and Internet methodologies. Comprised of a diverse team of professionals, STC develops focused, results-oriented communication programs for clients looking to achieve ambitious and sustainable business growth in the luxury goods, telecommunications, entertainment, travel, fashion and Internet industries. To learn more about the firm, visit them at www.stcassociates.com.