

Bonus Chapter

Search Techniques You Should Know

If you want to optimize your site in the search engines, it's important to understand how people search. I use Google for most of the examples in this bonus chapter because users perform 80 percent of all searches through Google or a Google partner. But other search engines work in a similar way. Most people do simple multiword searches by typing the words into the search box without any other kind of syntax. For instance, they might type *rodent racing* or *rodent racing scores* or *rodent racing scores alabama*.

This is a simple AND search. It tells Google to “find all the pages with the word *rodent*, and the word *racing*, and the word *scores*, and the word *alabama*.” Nevertheless, you can search a number of other ways by using two basic techniques:

- ✓ Use Google's Advanced Search page. (Other search engines generally have advanced search pages, too.)
- ✓ Type the words into the search box by using a particular syntax.

Many people prefer to use the Advanced Search page, shown in Figure BC-1, because they don't have to mess with the syntax. I prefer to type commands directly from the Google toolbar, which is a little quicker. And to use some special commands, you *have* to use the typed command; you can't search from the Advanced Search page. (I show you how to download the Google toolbar in Chapter 1.)

Both of these advanced search techniques can be very useful. In Chapter 2, for instance, you use one of these techniques to find out which of your pages Google has indexed. More people are using these search techniques every day.

You can get to the Advanced Search page from the Google home page by clicking the Advanced Search link next to the search box.

The screenshot shows the Google Advanced Search interface. At the top, there's a search bar and a 'Google Search' button. Below that, there are several sections for refining search results:

- Find results:** Options include 'with all of the words', 'with the exact phrase', 'with at least one of the words', and 'without the words'. There are input fields for each and a '10 results' dropdown.
- Language:** 'Return pages written in' with a dropdown for 'any language'.
- Region:** 'Search pages located in:' with a dropdown for 'any region'.
- File Format:** 'Only' dropdown and 'return results of the file format' dropdown for 'any format'.
- Date:** 'Return web pages first seen in the' with a dropdown for 'anytime'.
- Numeric Range:** 'Return web pages containing numbers between' with two input fields and 'and'.
- Occurrences:** 'Return results where my terms occur' with a dropdown for 'anywhere in the page'.
- Domain:** 'Only' dropdown and 'return results from the site or domain' with an input field and 'More info' link.
- Usage Rights:** 'Return results that are' with a dropdown for 'not filtered by license' and 'More info' link.
- SafeSearch:** Radio buttons for 'No filtering' (selected) and 'Filter using SafeSearch'.

Below these are sections for 'Page-Specific Search' (Similar, Links) and 'Topic-Specific Searches' (Google Book Search, New! Google Code Search, Google Scholar, Google News archive search).

Figure BC-1:
The Google
Advanced
Search
page.

Google Search Techniques

This section examines the different types of searches you can do. I explain how to use the Advanced Search page, as well as how to use the special syntax to search directly from the search box on the Google toolbar or home page.



Google uses *word stemming*, meaning that it looks for variations of the words you're searching for, and finds stems of the word. Search for *rodent racing*, for instance, and Google also finds *rodent race*.

Find All of the Words search

This type of search tells the search engine to find pages containing the keywords in no particular order or location. This is the most basic search: an AND search.



The order in which you type the words affects the results. When doing a Find All of the Words search, Google starts by doing a Find the Exact Phrase search, so the order is important.

Advanced Search page: Type the search words into the Find Results with All of the Words box and then click the Google Search button.

Toolbar/home page: Type the words into the search box and then press Enter or click the Google Search button.

Syntax example: `rodent racing scores`

Google finds all the pages containing all three words: *rodents*, *racing*, and *scores*. If Google can't find a page with all three words, it doesn't return any pages.



Google is *case insensitive*. It doesn't care whether you type search words in uppercase, lowercase, or mixed case. If you type **RODENT RACING**, it also finds *rodent racing*, *Rodent Racing*, and so on.

Find the Exact Phrase search

If you know the exact phrase you're looking for, tell the search engine to return only pages with the words in the order in which you type them. This type of search provides you with fewer search results than the Find All of the Words search.

Advanced Search page: Type the words into the Find Results with the Exact Phrase box in the order you expect to see those words in the search results.

Toolbar/home page: Type the words into the search box enclosed in quotation marks.

Syntax example: `"rodent racing scores"`

Find at Least One of the Words search

You can tell Google to find pages with any of the words or phrases you provide.

Advanced Search page: Type the words into the Find Results with At Least One of the Words box.

Toolbar/home page: Type the words into the search box separated by OR. The OR must be capitalized, or it's ignored (and you end up with an AND search).

Syntax example: `rodent OR racing`

This example search isn't terribly useful because you get a huge number of pages, most of which aren't related to rodent racing. They're either related to rodents or to racing. This technique is much more useful when you use search phrases, such as "*rodent racing*" OR "*racing rodents*".



If you can't remember what a particular search syntax is, here's a quick way to figure it out. Suppose that you forget that you use the OR operator to tell Google to find any of the search words you've entered. Enter your search words in the appropriate boxes on the Advanced Search page. (For example, enter *rodent racing* in the Find Results with At Least One of the Words box.) Then on the search results page, look at the search box at the top. Google displays the search syntax used by the Advanced Search page for you:

```
rodent OR racing.
```

Find common words

Google and most search engines ignore certain common words — such as *a*, *the*, *and*, *where*, *how* — and some single digits and letters. For instance, if you search for *King George I*, when the search results page appears, you see this message: "I" is a very common word and was not included in your search.

If you really need to include the omitted word or character, two methods tell Google to include it:

Advanced Search page: Type the words into the Find Results with the Exact Phrase box in the order you expect to see them in the search results. Or, use the Find Results with All of the Words box and add a + (plus) sign immediately before the character or word that Google is ignoring.

Toolbar/home page: Type the words into the search box and enclose them in quotation marks. Or, add a + (plus) sign immediately before the character or word that Google is ignoring.

Syntax example: "king george I" or king george +I

Search for synonyms

This search is a fun one. You can tell Google to find synonyms for you. For instance, searching for synonyms of *rodent racing* returns pages with the phrases *rat race* and *rodent performance*.

Advanced Search page: The Advanced Search page has no tool for this kind of search.

Toolbar/home page: Precede words with ~.

Syntax example: ~rodent ~racing

Omit pages with particular words

You can tell Google to search for a phrase but to omit pages that contain particular words. For instance, you may want to find all the pages with the phrase *rodent racing* but omit the pages containing the word *chevrolet*. (Omitting Chevrolet in this case dramatically reduces the number of results for some reason, which would probably be quite clear to me if I were a Chevrolet racing fan rather than a geek.) As another example, suppose you're searching for pages related to *solaris*, but you're not interested in the Sun Solaris servers; you're looking for information on the novel *Solaris* and the two movies. Searching for *solaris -sun* dramatically changes the results; try it, and you'll see what I mean.

Advanced Search page: Type a search word or phrase into one of the top three Find Results boxes, and then type the words that you don't want in the results into the Find Results without the Words box.

Toolbar/home page: Type a dash before the word you don't want to appear in the search results pages.

Syntax example: "rodent racing" -chevrolet

This search phrase tells Google to look for all the pages containing the phrase *rodent racing* but to exclude any pages containing the word *chevrolet*.

Search the page text

When Google searches, it looks at Web page text, <TITLE> tag text, URL text, and so on. If you want, you can tell Google to look only at the text in the page and ignore everything else.

Advanced Search page: Type your search word or phrase into the top Find Results box, and then select the In the Text of the Page option in the Occurrences drop-down list.

Toolbar/home page: Precede the words with `allintext:`.

Syntax example: `allintext: rodent racing` returns pages with only the words *rodent* and *racing* in the page text in any order. `allintext: "racing rodent"` returns pages with the words in that order.

Search between TITLE tags

You can tell Google to find all the search words in a page's `TITLE` tags, which can sometimes return excellent results.

Advanced Search page: Type your search word or phrase into one of the top three Find Results boxes, and then select the In the Title of the Page option in the Occurrences drop-down list box.

Toolbar/home page: Precede the search terms with `allintitle`.

Syntax example: `allintitle: rodent racing` returns pages with only the words *rodent* and *racing* in the title in any order. `allintitle: "racing rodent"` returns pages with the words in that particular order.

Search between <TITLE> tags and elsewhere

You can combine a title search with a body search, telling Google to search for certain words in the `<TITLE>` tags and search for other words in the rest of the page.

Advanced Search page: The Advanced Search page has no tool for this kind of search.

Toolbar/home page: Add `intitle:` before the words for which you want to search the `<TITLE>` tags. The other words stand alone. Unlike the `allintitle: command`, don't add a space between `intitle:` and the search word.

Syntax example: `intitle:rodent intitle:racing cobham` searches for the words *rodent* and *racing* between the page's `<TITLE>` tags and searches for the word *cobham* in the rest of the page.

Search the URL

You can search URLs — domain names, directory names, and filenames. However, Google won't find the search words unless they're separated by dashes or dots. For instance, a search on *rodent racing* finds `www.rodent-racing.com`, `www.rodentracing.com/rodent-racing-scores.html`, or `rodent.racing.com`, but not `www.rodentracing.com`.

Advanced Search page: Type your search word or phrase into the top Find Results box and then select In the URL of the Page in the Occurrences drop-down list.

Toolbar/home page: Precede the words with `allinurl:`.

Syntax example: `allinurl: rodent revenge` returns all pages with the words *rodent* and *revenge* in the URL.

Search the URL and elsewhere

You can combine a URL search with a body search, telling Google to search for certain words in the URL and for other words in the rest of the page.

Advanced Search page: The Advanced Search page has no tool for this kind of search.

Toolbar/home page: Add `inurl:` before the words for which you want to search the URL. The other words stand alone. Unlike the `allinurl:` command, don't add a space between `inurl:` and the search word.

Syntax example: `inurl:rodent inurl:racing cheats` searches for the words *rodent* and *racing* in the URL and searches for the word *cheats* in the rest of the page.

Search within a Web site

You can tell Google to search only within a particular Web site. This type of search is handy if you're pretty certain that the information you want is in that site. It's also a great tool for finding out how many pages on your site, or a competitor's site, are indexed by Google. And it allows you to search within particular top-level domains.

Advanced Search page: Type your search term into one of the Find Results boxes. Ensure that Only is selected in the Domain drop-down list and then type the domain you want to search in the text box on that same line.

Toolbar/home page: Precede the URL with `site:` (with no space between `site:` and the site name) and include search terms. Or, type a search term into the toolbar's search box and then click the Search Site button.

Syntax example: `site:cnn.com iraq war` searches just on `cnn.com`; `site:org global warming` searches all `.org` sites.

To view all the pages on a site, enter this: `site:cnn.com`

Google will tell you how many pages it has indexed in the site.

Ignore a Web site

You can tell Google to omit a Web site from a search. If a particular site is returning a lot of results and you know what you want isn't there, you can run your search again and remove these spurious results. Unlike the preceding command, you can ignore multiple sites or top-level domains at the same time.

Advanced Search page: Type your search term into one of the Find Results boxes. Ensure that Don't is selected in the Domain drop-down list and then type the domain you want to ignore in the text box on that same line.

Toolbar/home page: Precede the URL with `-site:` (don't add a space between `site:` and the URL) and include search terms.

Syntax example: `-site:cnn.com iraq war` searches everywhere but `cnn.com`; `-site:org -site:gov global warming` ignores all `.org` and `.gov` sites.

Find a page in the index

Google provides a way to search for a particular page to see if it's in the Google index. However, Google is a little inconsistent in its results; sometimes it provides a lot of information about the page and sometimes only a little (less than it has available). It also provides four links to other types of searches: the page stored in the cache, pages that are similar, pages that link to the specified page, and pages that contain the URL in their text.

Advanced Search page: The Advanced Search page provides no tool for this search.

Toolbar/home page: Type the URL of the page and click the Google Search button. (Don't press Enter if you're using the toolbar, or you'll load the specified page into the browser.) You may also precede the URL with `info:` (with no space between `info:` and the URL), though there's no real benefit to doing so.

Syntax example: `info:rodent-racing.com` or `rodent-racing.com`

See what's in the Google cache

You can ask Google to show you a copy of a page it has stored in its cache. A *cache* is a temporary storage area. Google stores copies of most, though not all, of the pages it has indexed. You can even highlight words in the cached document.

Advanced Search page: The Advanced Search page provides no tool for this search.

Toolbar/home page: Precede the URL of the page with `cache:`. Remember, that unlike some of the other search syntaxes, you don't add a space between `cache:` and the URL. You can also click the *i* button on the toolbar and select Cached Snapshot of Page.

Syntax example: `cache:http://cnn.com` or `cache:cnn.com`

`cache:cnn.com iraq` opens the cached page and highlights the word *iraq*.



Under most entries in the search results page, you see a Cached link; click this link to view the cached page.

Find pages linking to the specified page

Google provides a quick way to find pages linking to a particular page. Note that this command doesn't find all the pages linking to the specified page; it generally only finds pages with a PageRank of 4 or better. (You find out more about PageRank in Chapter 14.)

Advanced Search page: Enter the URL into the Links — Find Pages That Link to the Page text box and click Search. (You have to scroll down the page a bit to find the Links text box. It's in the Page Specific section.)

Toolbar/home page: Type `link:` and then the URL with no space in between. You can also open a page in your browser; click the *i* button on the Google toolbar, and then select Backward Links.

Syntax example: `link:http://cnn.com` or `link:cnn.com` or `link:www.cnn.com`



This command is a little flaky. I recommend that you try using the domain name with and without the `www.` piece because sometimes they return different results. In any case, you only get a small subset of the incoming links; it's of no real use. I actually considered totally omitting this syntax, as it's pretty worthless, but I think it's worth knowing that it's pretty worthless, so I decided to include it. Yahoo!'s link search is much better, so if you want a quick idea of incoming links, go to Yahoo!, search for `site:domain.com`, and then click the `Inlinks (xxx)` link you see near the top of the results to have Yahoo! show you the incoming links.

Search Froogle for products for sale

You can search Froogle, Google's price comparison and shopping service. (Actually, it's now named Google Product Search, but Froogle sounds more fun and many in the business continue to use that name.) Go directly to Froogle (froogle.com or <http://www.google.com/products>) and search there. Or, on the Google home page, click the Shopping link above the search box (or, sometimes, use the Products link — it seems to change). You find out about Froogle in Chapter 17.

Topic- and domain-specific searches

Google provides several topic- and domain-specific searches, available from the Advanced Search page or directly through a particular URL (which you can bookmark, of course).

You can search sites related to the following topics and domains:

- ✓ **Apple Macintosh:** google.com/mac
- ✓ **Books:** books.google.com
- ✓ **BSD Unix:** google.com/bsd
- ✓ **Linux:** google.com/linux
- ✓ **Microsoft:** google.com/microsoft.html
- ✓ **News (up to the minute):** news.google.com
- ✓ **News archives:** news.google.com/archivesearch
- ✓ **Public source code:** google.com/codesearch
- ✓ **Scholarly papers:** scholar.google.com
- ✓ **Universities:** www.google.com/options/universities.html
- ✓ **U.S. Government .gov and .mil sites:** google.com/unclesam

Search in a particular language

You can specify the language of the keyword or keyword phrase. You can also change your preferences to tell Google to always search for a particular language or multiple languages. Click the Preferences link on the Google home page.

Advanced Search page: Type your search term into one of the Find Results boxes and then select a language from the Language drop-down list.

Toolbar/home page: You have to use the Advanced Search page to do this search.

Specify and ignore file formats

You can tell Google to search only for a particular file format or to ignore a file format. Google can search a variety of file types, such as Adobe Acrobat, PostScript, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and Rich Text Format files.

Advanced Search page: Type your search term into one of the Find Results boxes, and then select either Only (if you want to restrict the search to a particular file type) or Don't (if you want to ignore a file type) from the File Format drop-down list. Then pick the file format from the drop-down list to the right.

Toolbar/home page: Precede the *file type* — the extension — with `file type:`. Do *not* include a space between `filetype:` and the file extension.

Syntax example: `rodent racing filetype:pdf` finds the words *rodent* and *racing* in PDF (Adobe Acrobat) files. `rodent racing -filetype:pdf` tells Google to search all file types but PDF. `rodent -filetype:ppt -filetype:pdf` tells Google to search all types with the exception of PPT and PDF files.

Note that you can tell Google to ignore multiple file types, but you can't tell it to restrict searches to multiple file types.

Look for recent changes

Google allows you to search for pages that have been added or updated during a specific time.

Advanced Search page: Type your search term into one of the Find Results boxes and then select a time period from the Date drop-down list — currently your choices are the last 3, 6, or 12 months.

Toolbar/home page: Using the search box is more difficult. You can use the `daterange:` command, but you have to convert the date range you want into the Julian calendar. (Search at Google for *julian date converter* to find a conversion tool.) Using this command, you can search all the new pages indexed, say, this week, for a particular keyword. However, Google doesn't guarantee that `daterange:` will work; reportedly, it sometimes returns weird results.

Syntax example: `rodent racing daterange:2453126- 2453132`



A tool will do this work for you, but you won't find it at Google. Go to the GooFresh tool at ResearchBuzz (www.researchbuzz.org/archives/001405.shtml). This tool allows you to search Google for updates made today, yesterday, within the last week, or the last 30 days.

Ignore sexual content

If a search phrase you're working with is, um, a double entendre — if you're getting a lot of sex-related results when that's not what you're looking for — Google enables you to ignore this sexual content. And no, Google won't let you restrict searches to *only* sexual content.

Google has a feature called SafeSearch, which, by default, is set to *medium*. This means Google censors what it thinks are probably explicit images when you use the Image search (discussed later in the chapter). However, you can also set SafeSearch to filter both text and images. You can do this two ways:

- ✓ **Advanced Search page:** Use SafeSearch once and it remains turned on until you click the Google SafeSearch is ON link on the search results page.
- ✓ **Preferences page:** You find a Preferences link on the home page.

Find similar pages

You can search for pages that are similar to the specified page. Sometimes this search works well, but often it doesn't. (I don't think the Gaelic Language page at the University of Edinburgh has much in common with Amazon.com.)

Advanced Search page: Enter the URL into the Similar — Find Pages Similar to the Page text box and click Search. (Again, you need to scroll down the page a bit to find this.)

Toolbar/home page: Type `related:` and then the URL with no space in between.

Syntax example: `related:http://cnn.com` or `related:cnn.com` or `related:www.cnn.com`

Find the definition of a word

You can quickly search for the definition of a word. This isn't really search engine optimization related, but I thought I'd include it anyway.

Advanced Search page: The Advanced Search page has no tool for this search.

Toolbar/home page: Type `define:` and then the word.

Syntax example: `define:rodent`

If you include multiple words, Google tries to find a definition for the complete term.

Search for a stock ticker symbol

You can ask Google for information about a particular stock or several stocks. The search results will include several links to financial sites such as Yahoo! Finance, Quicken, and the Motley Fool.

Advanced Search page: The Advanced Search page has no stocks tool.

Toolbar/home page: Type `stocks:` and then the stock symbol(s).

Syntax example: `stocks:ibm msft yhoo`

Other Google Searches and Products

Google provides other search methods that you should be aware of, some of which have implications on how you optimize your site.

Google Image Search

On the Google home page, click the Images tab. When you search from this page, Google looks for, um, images. It shows you thumbnails of images it thinks match the search term, based on words it finds in the filename, the <ALT> tag, and the body of the Web page close to the image. It's a neat little trick. I just searched on my own name, and within five seconds, I saw a page that contained 20 images, 3 of which contained *me*, and 2 of which were pictures of books I've written, as well as several pictures of people who have stolen my name.

Google Groups

Choose the Groups link on the More menu on the Google main page to see Usenet discussion groups (often known as *newsgroups*). Google stores newsgroup messages, which originally required you to use special newsreader programs to view them. When you search Usenet through Google, you see a results page that looks similar to a Web-search results page. Click a link, and you see a message in your browser in a Google Web page.

Google Directory

Go to dir.google.com to view the Google Directory, which contains data provided by the Open Directory Project (dmoz.org). You can browse categories by clicking links. If you've used Yahoo! Directory (dir.yahoo.com), you'll find this system very similar.

Google News

Click the News link on the main page or go to news.google.com to find this great site for news junkies. Browse news stories from 4,500 news sources — the obvious sources, such as UPI, the *Washington Post*, Reuters, and so on, and many little-known sources from around the world. (Only 4,500? Google's been claiming that for years now, so maybe it's much more and they've forgotten to change the claim.)

Google Alerts

Google's Alerts (www.google.com/alerts) is a handy tool that keeps you updated with changes on the Web. Enter your keywords, what you want to search — News, the Web, News and the Web, or Google Groups — specify

how often you want updates (immediate, once a day, or once a week), and provide your e-mail address. Google will e-mail you when it finds matching Web pages, news articles, or discussion group messages. A great way to keep informed.

And more

Here are a few other Google products you may want to know about. Go to the More Google Products page (www.google.com/options/) to find them.

- ✓ **Google Desktop:** Use Google's technology to search your own computer.
- ✓ **Google Video:** Search TV shows and videos.
- ✓ **Blog Search:** Search through thousands of blogs.
- ✓ **Google Earth:** Search combined with satellite images, maps, and more.
- ✓ **Google Finance:** Search financial information.
- ✓ **Patent Search:** Search the U.S. Patent Office.



Go to www.google.com/help/features.html to find other search systems, such as PhoneBook, Street Maps, Web Page Translation, Music and Movies, and so on.

The Other Search Systems

Google is the monster, the system everyone is interested in because it's everywhere. It's not just at www.google.com; it's also on AOL.com, Earthlink.com, WashingtonPost.com, and many others.

The other search systems have similar search tools. I'm not going to describe each tool in detail because this landscape is constantly changing. If you want to search at another site, dig around a little to find instructions. You may need to do a search first before you can get to a page that provides instructions. Portal sites, such as MSN.com and AOL.com, often provide a search box and button, but no instructions. However, after you've searched once and entered the full search area, you can find instructions. Look for the Advanced Search and Search Help pages. You'll find similar services to the ones I describe.