

Getting to Know Google

These days, whether you consciously choose it or not, your web search engine is probably Google (<http://www.google.com>). That's because most search sites, whether they admit it or not, are powered by Google. And, why not? Google rose to the top of the search engines because its formula provided more relevant search results than any other. Also, its deceptively simple page makes it fast and easy to use.

I say *deceptively* simple because, underneath that friendly, colorful logo is a powerful search system that can accept queries as complex as you want to make them. Many people don't realize that if they do not find what they want on the first try, there are techniques they can use to improve their results. There are also ways to search Google that are more appropriate for certain specialty queries. And, Google is hiding a few extras that take it beyond a search engine into an amazing reference tool.

Let's start with an example. We're cooking dinner tonight, and we need a recipe for spaghetti sauce that does not use sugar. We might go to Google and type in this:

```
no sugar spaghetti sauce recipe
```

Google tells us we have about 56,000 results to wade through. A daunting task, considering the first page doesn't seem to contain anything relevant. The first thing we will try is grouping our search terms into phrases, using double-quotes. This tells Google that certain words should be searched for together. So, we try this:

```
"no sugar" "spaghetti sauce" recipe
```

That certainly narrowed things down, didn't it? This is a good technique to use when your search contains a lot of common words that could appear together in different contexts than what you are looking for. Unfortunately in this case, our first page of results is still not as relevant as we would like. The next thing we will try is searching for pages that *do not* contain a certain term:

```
-sugar "spaghetti sauce" recipe
```

This tells Google that we want pages that are about "spaghetti sauce" recipe, but specifically do not contain the term `sugar`. That seems to have done it—our first page of results is chock full of spaghetti sauce recipes that don't use sugar. "Subtracting" a term can also be useful when what you are searching for has multiple meanings. For example, if you are researching the "Holy Grail," you might want to add "-Python" to your search to eliminate all the references to the movie *Monty Python and the Holy Grail*.

Now, maybe spaghetti sauce is too specific—we might want to also consider marinara sauce. In that case, we use Google's *or* syntax:

```
-sugar "(spaghetti | marinara) sauce" recipe
```

When there are multiple words that will satisfy our search, we can group them with parentheses and separate them with the “pipe” character—a vertical line that is most likely on the right-hand side of your keyboard. Google will then search for references to “spaghetti sauce” or “marinara sauce.”

At this point, we’ve become so intrigued by what we can find with Google, we’ve completely forgotten about dinner. Now we are interested in just how many different chicken casserole recipes we can find. Here’s one way:

```
"chicken * casserole" recipe
```

Notice the asterisk. This is called a *wildcard*. It tells Google that we don’t care what word comes between chicken and casserole, but there should be something there. This can be particularly useful when you know most of a title of something, but are unsure of all the words. This particular search brings back all kinds of chicken casserole recipes. Something tells me we better just eat out tonight.

Besides its standard web search, Google has many specialty searches that are triggered either by a keyword or simply by what you are searching for. For example:

```
site:microsoft.com "Internet Explorer" patches
```

This searches for references to “Internet Explorer” patches on microsoft.com only. If your favorite web site does not offer a search function, this is a pretty good substitute.

Maybe we want to know which sites on the Web link to the OKC PC User’s Group web site:

```
link:okcpcug.org
```

We can also tell Google that what we are looking for is in an Adobe Acrobat PDF file:

```
filetype:pdf refrigerator manual
```

Google pays attention to what you are searching for, and offers helpful services based on what it thinks you want. For example, have you ever noticed Google shows your search words in the blue bar above your results? The search terms that are underlined link to a definition of that word at dictionary.com. If you spell a word wrong, Google will prompt you with the correct spelling and ask if you would like to search for that instead.

Google has many tricks like this up its sleeves. Search for a phone number, and Google will do a reverse lookup on the number. Search for a name with a city and state and/or zip code, and Google will look up their phone number. Search for an address and you will get links to maps of that location. Include a zip code with your search terms, and Google will offer you local results—web sites for locations near the zip code, ordered by distance. You can even type in a shipment tracking number, and Google will figure out who the shipping company is and give you a link to the tracking information.

Google offers some services that have nothing to do with searching. Try this:

$$68.12 + (68.12 * .2)$$

The Google calculator will return the result of this computation. Fun, although, admittedly, not particularly useful. The Google calculator can be useful though, for things like conversions:

$$68\text{mm} = ? \text{ inches}$$

You can do all kinds of conversions using Google—a handy tool whenever you get around to making that spaghetti sauce.

Google is much more useful than most people realize—we've only scratched the surface of what Google can do. If you are interested in more, check out *Hacking Google* by Tara Calishain and Rael Dornfest. It includes many more search tips, and information for programmers who want to include Google search results in their applications. As you explore what Google can do, you will probably discover that Google feels like more than just a web site.

In fact, Google is your friend.