

By Alan Norton

Did you hate memorizing seemingly insignificant facts for tests at school? No photographic memory? Good news! Life is now an open-book exam -- assuming you have a computer, browser, and Internet access. If you know how to use a good search engine, you don't have to stuff your mind with facts that are useful only when playing [Jeopardy!](#) and [Trivial Pursuit](#).

Chances are, you aren't the first person to run across the problem you are experiencing. Chances are also good that an answer is awaiting your discovery on the Internet -- you just have to remove the irrelevant pages and the unhelpful/incorrect results to find that needle in the haystack.

Google has been fanatical about speed. There is little doubt that it has built an incredibly fast and thorough search engine. Unfortunately, the human element of the Internet search equation is often overlooked. These 10 tips are designed to improve that human element and better your Internet search skills. (Note: All examples below refer to the Google search engine.)

1: Use unique, specific terms

It is simply amazing how many Web pages are returned when performing a search. You might guess that the terms [blue dolphin](#) are relatively specialized. A Google search of those terms returned 2,440,000 results! To reduce the number of pages returned, use *unique* terms that are *specific* to the subject you are researching.

2: Use the minus operator (-) to narrow the search

How many times have you searched for a term and had the search engine return something totally unexpected? Terms with multiple meanings can return a lot of unwanted results. The rarely used but powerful minus operator, equivalent to a Boolean NOT, can remove many unwanted results. For example, when searching for the insect [caterpillar](#), references to the company Caterpillar, Inc. will also be returned. Use [Caterpillar -Inc](#) to exclude references to the company or [Caterpillar -Inc -Cat](#) to further refine the search.

3: Use quotation marks for exact phrases

I often remember parts of phrases I have seen on a Web page or part of a quotation I want to track down. Using quotation marks around a phrase will return only those exact words in that order. It's one of the best ways to limit the pages returned. Example: ["Be nice to nerds"](#). Of course, you must have the phrase exactly right -- and if your memory is as good as mine, that can be problematic.

4: Don't use common words and punctuation

Common terms like *a* and *the* are called [stop words](#) and are usually ignored. Punctuation is also typically ignored. But there are exceptions. Common words and punctuation marks *should* be used when searching for a specific phrase inside quotes. There are cases when common words like *the* are significant. For instance, [Raven](#) and [The Raven](#) return entirely different results.

5: Capitalization

Most search engines do not distinguish between uppercase and lowercase, even within quotation marks. The following are all equivalent:

- technology
- Technology
- TECHNOLOGY

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- "technology"
- "Technology"

6: Drop the suffixes

It's usually best to enter the base word so that you don't exclude relevant pages. For example, *bird* and not *birds*, *walk* and not *walked*. One exception is if you are looking for sites that focus on the act of walking, enter the whole term *walking*.

7: Maximize AutoComplete

Ordering search terms from general to specific in the search box will display helpful results in a drop-down list and is the most efficient way to use AutoComplete. Selecting the appropriate item as it appears will save time typing. You have several choices for how the AutoComplete feature works:

Use Google AutoComplete. The standard [Google start page](#) will display a drop-down list of suggestions supplied by the Google search engine. This option can be a handy way to discover similar, related searches. For example, typing in *Tucson fast* will not only bring up the suggestion *Tucson fast food* but also *Tucson fast food coupons*.

Use browser AutoComplete. Use this [Google start page](#) to disable the Google AutoComplete feature and display a list of *your* previous searches in a drop-down box. I find this particularly useful when I've made dozens of searches in the past for a particular item. The browser's AutoComplete feature must be turned on for this option to work. Click one of these links for instructions detailing how to turn AutoComplete on or off in [I.E.](#) and [Firefox](#).

Examples:

- Visual Basic statement case
- Visual Basic statement for
- Visual Basic call

8: Customize your searches

There are several other less well known ways to limit the number of results returned and reduce your search time:

- **The plus operator (+):** As mentioned above, stop words are typically ignored by the search engine. The plus operator tells the search engine to include those words in the result set. Example: [tall +and short](#) will return results that include the word *and*.
- **The tilde operator (~):** Include a tilde in front of a word to return results that include synonyms. The tilde operator does not work well for all terms and sometimes not at all. A search for [~CSS](#) includes the synonym *style* and returns fashion related style pages --not exactly what someone searching for CSS wants. Examples: [~HTML](#) to get results for *HTML* with synonyms; [~HTML -HTML](#) to get synonyms only for *HTML*.
- **The wildcard operator (*):** Google calls it the *fill in the blank* operator. For example, [amusement *](#) will return pages with *amusement* and any other term(s) the Google search engine deems relevant. You can't use wildcards for parts of words. So for example, *amusement p** is invalid.
- **The OR operator (OR) or (|):** Use this operator to return results with either of two terms. For example [happy joy](#) will return pages with both *happy* and *joy*, while [happy | joy](#) will return pages with either *happy* or *joy*.
- **Numeric ranges:** You can refine searches that use numeric terms by returning a specific range, but you must supply the unit of measurement. Examples: [Windows XP 2003..2005](#), [PC \\$700 \\$800](#).
- **Site search:** Many Web sites have their own site search feature, but you may find that Google site search will return more pages. When doing research, it's best to go directly to the source, and site search is a great way to do that. Example: [site:www.intel.com rapid storage technology](#).
- **Related sites:** For example, [related:www.youtube.com](#) can be used to find sites similar to YouTube.

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- **Change your preferences:** Search preferences can be set globally by clicking on the gear icon in the upper-right corner and selecting Search Settings. I like to change the Number Of Results option to 100 to reduce total search time.
- **Forums-only search:** Under the Google logo on the left side of the search result page, click More | Discussions or go to [Google Groups](#). Forums are great places to look for solutions to technical problems.
- **Advanced searches:** Click the Advanced Search button by the search box on the Google start or results page to refine your search by date, country, amount, language, or other criteria.
- **Wonder Wheel:** The Google Wonder Wheel can visually assist you as you refine your search from general to specific. Here's how to use this tool:
 1. Click on More Search Tools | Wonder Wheel in the lower-left section of the screen to load the Wonder wheel page (**Figure A**).

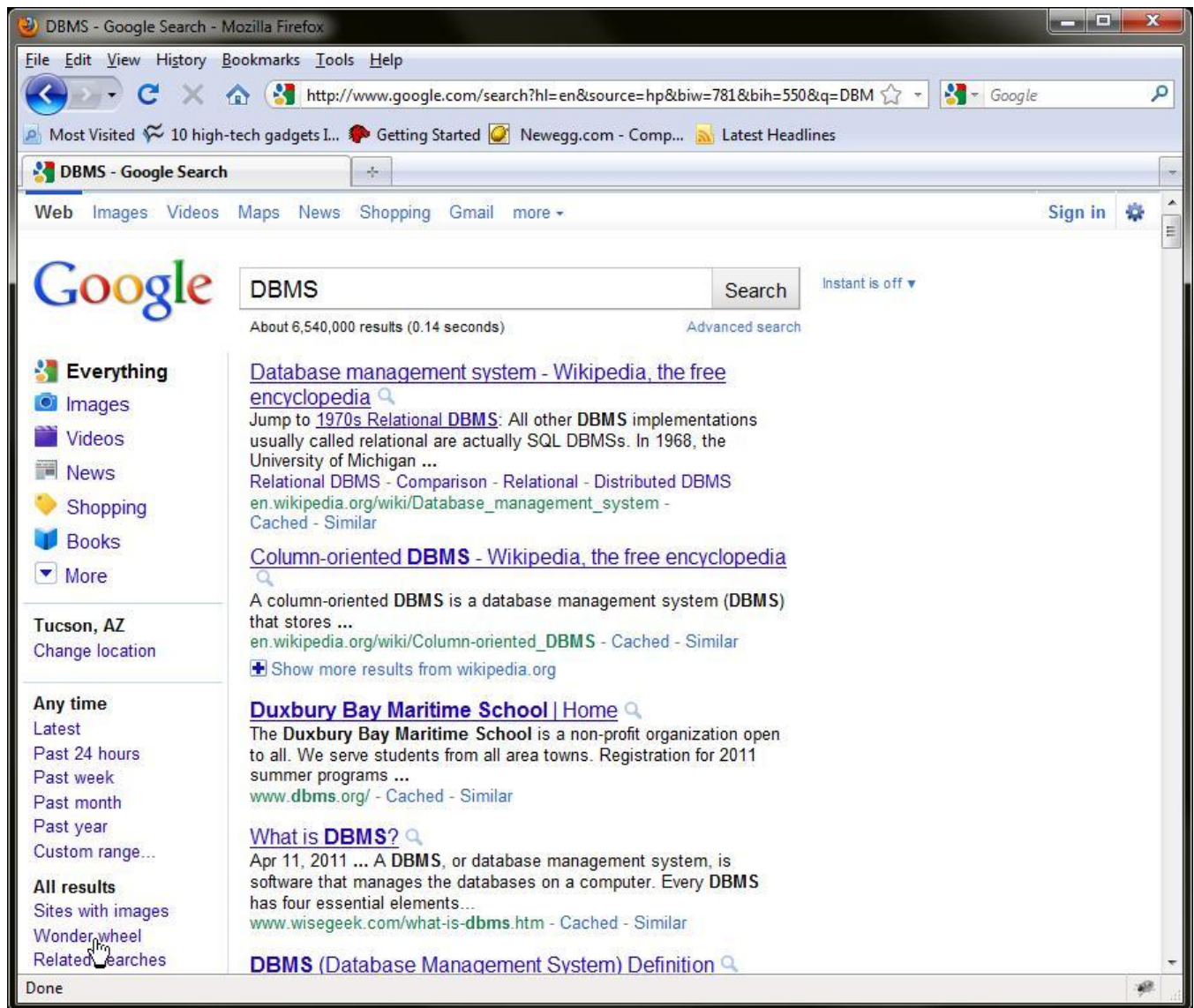


Figure A

2. Click on dbms tutorial to display a second wheel (**Figure B**).

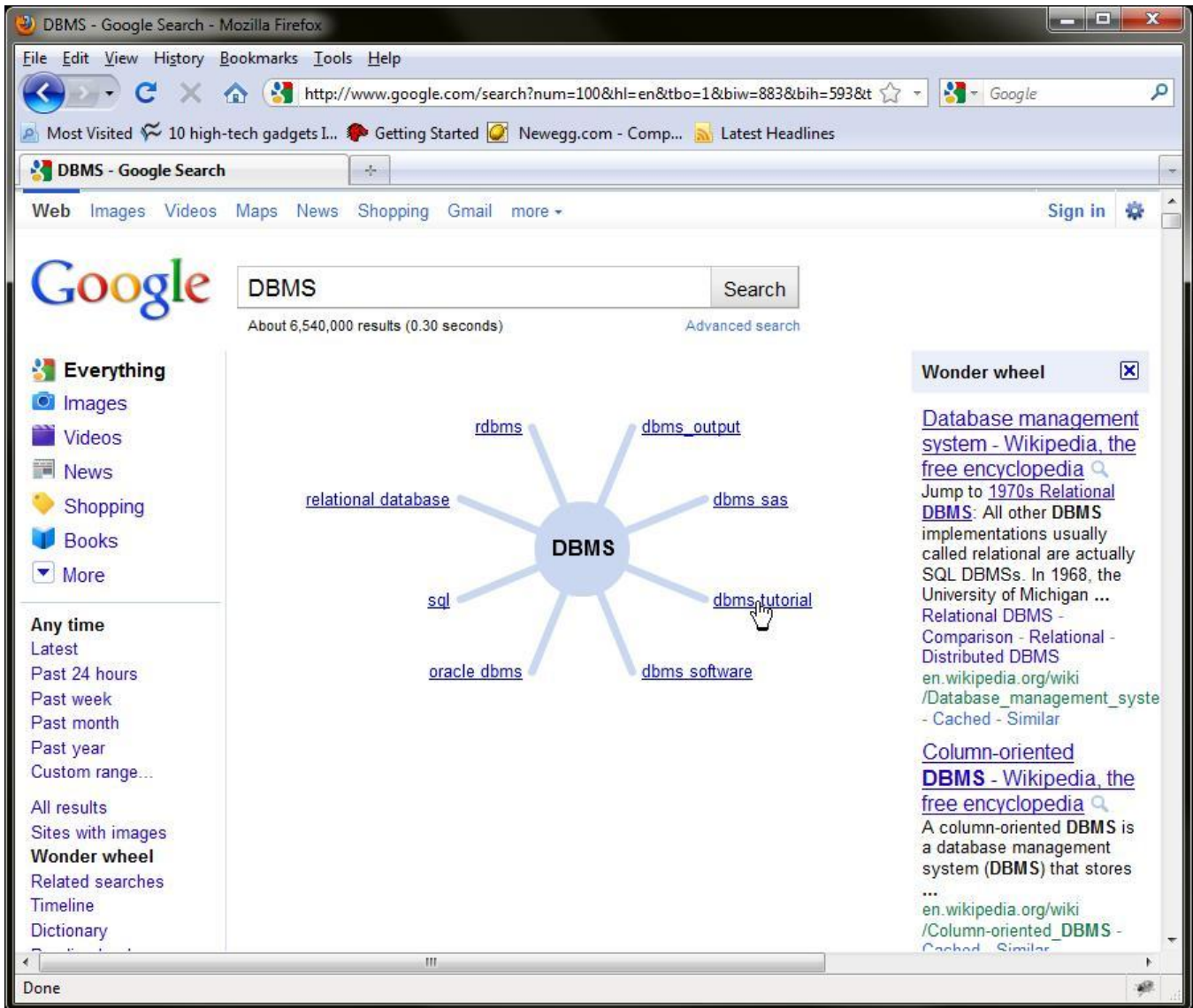


Figure B

As you can see in **Figure C**, Google now displays two wheels showing the DBMS and dbms tutorial Wonder Wheels, with the results for dbms tutorial on the right side of the page. You can continue drilling down the tree to further narrow your search. Click the Close button next to the words *Wonder Wheel* at the top of the results to remove the Wonder Wheel(s).

9: Use browser history

Many times, I will be researching an item and scanning through dozens of pages when I suddenly remember something I had originally dismissed as being irrelevant. How do you quickly go back to that Web site? You can try to remember the exact words used for the search and then scan the results for the right site, but there is an easier way. If you can remember the general date and time of the search you can look through the [browser history](#) to find the Web page.

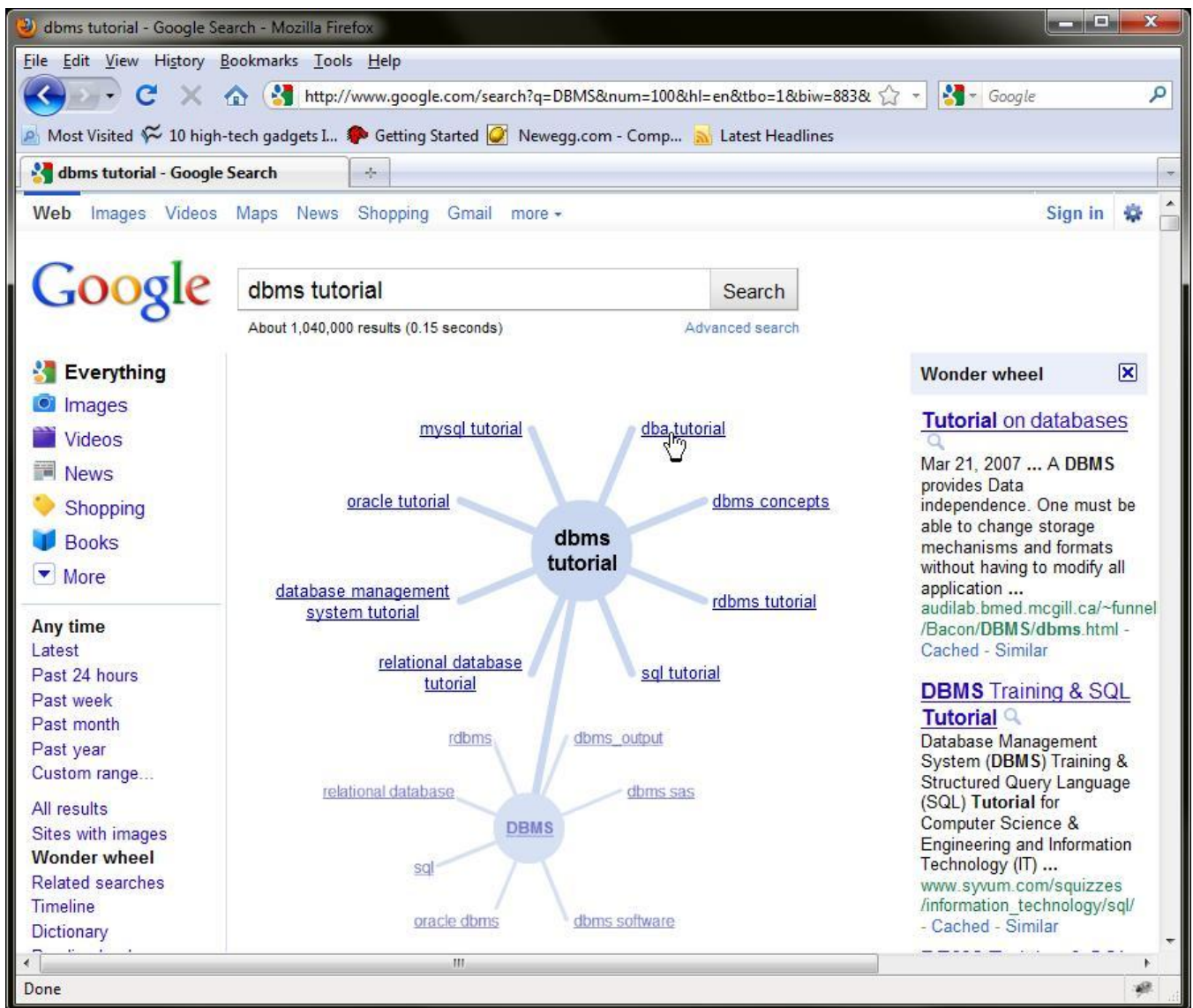


Figure C

10: Set a time limit -- then change tactics

Sometimes, you *never can* find what you are looking for. Start an internal clock, and when a certain amount of time has elapsed without results, stop beating your head against the wall. It's time to try something else:

- Use a different search engine, like [Yahoo!](#), [Bing](#), [Startpage](#), or [Lycos](#).
- Ask a peer or call support.
- Ask a question in the appropriate forum.
- Use [search experts](#) who can find the answer for you.

The bottom line

A tool is only as useful as the typing fingers wielding it. Remember that old acronym GIGO, *garbage in, garbage out*? Search engines will try to place the most relevant results at the top of the list, but if your search terms are too broad or ambiguous, the results will not be helpful. It is your responsibility to learn how to make your searches both fast and effective. The Internet is the great equalizer for those who know how to use it efficiently. Anyone can now easily find facts using a search engine instead of dredging them from the gray matter dungeon - assuming they know a few basic tricks. Never underestimate the power of a skilled search expert.

