



*The Principle of Onions: When searching, it's better to start with very specific search queries and then get more and more general. If you start with more general queries you will tend to get overwhelmed with results.*

Google indexes over four billion Web pages but admits that they don't index the entire Internet. The Internet Archive, a collection of older copies of Web site pages, is by itself well over ten billion pages. And the Internet is getting larger, not smaller.

It's crucial that you start your Internet search right by structuring a query such that you get a limited number of results—otherwise you're going to get overwhelmed with information. If the very narrow query doesn't work, you should slowly get more and more general, until you achieve a good balance of useful—but not overwhelming—information. That's what the Principle of Onions is all about.

Of course, different types of search engines have different levels of information. What is just narrow enough on a full-text engine is impossibly narrow on a searchable subject index. That's because a full-text engine indexes an entire Web page, making searches on obscure keywords possible. Searchable subject indexes include only the title, URL, and description of a site, leaving little room for narrow search results.

How does this apply to the Principle of Onions? Let's take a look at four search scenarios and see how "narrow" means different things to the two different search engines. For these scenarios we'll use Google as our full-text engine and Yahoo as our searchable subject index.

## Searching for Lyrics

Are there really lyrics to that song you're listening to or is the singer just saying "Ugga oomp blat argh"? Now you can find out by searching for the lyrics online. Though the lyrics transcriptions provided by any given Web site are not guaranteed to be accurate, they'll get you a lot further than "ugga oomp."

### Full-Text Engines

For full-text engines the onion is simple. Search for the name of the artist, if you know it, and one line of lyrics that you're absolutely sure of, the more unique the better. If you're not sure of a single word within a line, use the full word wildcard. A nice narrow search therefore might look like this:

"they might be giants" "dot or is he a speck"

The screenshot shows a Google search interface with the query "they might be giants" "dot or is he a speck". The search results are displayed in a list format. The first result is "They Might Be Giants - Particle Man Lyrics" from AllMusic.com, with a snippet: "Particle man, particle man Doing the things a particle can What's he doing? It's not important! Particle man is he a dot, or is he a speck? ...". Other results include "They Might Be Giants - Schoolchildren Singing 'Particle Man'", "Particle Man - They Might Be Giants (Lyrics and Chords)", "They Might Be Giants - Particle Man lyrics", "THEY MIGHT BE GIANTS - ( Particle Man Lyrics)", "They Might Be Giants Lyrics - (Schoolchildren Singing & Quot...", and "Lyrics By XVID77 - They Might Be Giants - Particle Man". The search results are sorted by relevance, and the page shows 100 results out of about 101 for the query.

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A simple search still gets a lot of lyric results. (Image from <http://www.google.com/search?q=%22they+might+be+giants%22+%22dot+or+is+he+a+speck%22%22&sourceid=opera&num=100&ie=utf-8&oe=utf-8>.)

This search will get you results. But if it doesn't, start by removing the line of lyrics (you might be absolutely certain that you have the right lyrics, but you might be wrong) and substitute the name of the song:

"they might be giants" "particle man"

If that still doesn't work, use the band name and the words "lyric" and "search"—remove the song title. If you're lucky you'll land on a lyrics search engine.

Do you see how you're moving from more specific to more general with just a few searches?

## Searchable Subject Indexes

Searchable subject indexes are lousy for searching for the lyrics for one song. Instead, you'll want to use them to search for lyrics collections. Search for the name of the band and the word "lyrics":

"they might be giants" lyrics

Not only will that get you results, but you'll also discover that there's a category for that band, which will lead you to other resources if you want them.

The two techniques above will work for any band that's halfway well-known. But you may be interested in a band that has only a regional following. In that case you'll have to realize that "as specific as possible" is not going to be very specific. You may have to go to Google and just search for the band name and the word "lyrics."

## Searching for Technical Help

Whether you need a walkthrough for a game or help getting your video card to work right, you'll find that the Principle of Onions can make your search a lot easier. (We'll discuss the topic of finding technical help in greater depth later in Chapter 25, "Getting Technical Support—Drivers, Cheats, Walkthroughs, and More.")

### Full-Text Engines

When I'm using a full-text engine for technical help, I try to start by simply expressing the problem that I'm having:

My screen is flickering. I think it's my BadBrand  
video card.

From that simple expression extract the relevant concepts—screen, flickering, BadBrand video card—and turn that into a search. Usually I add the word "problem," which seems to focus the results:

screen flickering BadBrand "video card" problem

If that doesn't do the trick, keep the brand name and what the item is and the word "problem," but shuffle the descriptive words around. You may say "screen" and someone else may say "monitor." Someone might say "flicker" instead of "flickering."

After trying that, cut the search down to just the brand name, item, and the word "problem." If you still can't get results, try the brand name, item, and the word "support" or "FAQ."

### Searchable Subject Indexes

You're not going to find specific technical answers on Yahoo unless the problem is extremely popular and therefore extremely well documented (the computer equivalent of a car with an exploding gas tank). The best you're going to find are support sites for whatever you're interested in. So you might search for `BadBrand "video card" support` or even just `BadBrand support`. This is an option best suited for when you have a problem but you're not exactly sure how to describe it, or you're having a problem with a computer that could come from one of many components, and you're trying to find support for the computer itself.

### NOTE

Usually general search engines aren't the best place to find support information. I recommend you use Google Groups for finding technical support instead of Google's Web search. The cool thing is that the Principle of Onions works as well on Google Groups as it does on Google's general Web search.

## Searching for Dog Breed Information

Can you tell a Chihuahua from a collie? If you can't you might need a little help from the Internet. But whether Google or Yahoo is better for this kind of search depends on what you're looking for.

### Full-Text Engines

You might think that a search like `dog breed chihuahua` is a narrow enough query if you're searching Google. It's not. Go run that search in Google. I'll stay here. Did you run it? Did you get over 100,000 results? Right. For this kind of onion searching you want to search full-text only if you have a question about a particular breed. For example, you may want to know about hip problems in elderly German Shepherds:

`hip aging "German Shepherds"`

That gives you a reasonable number of results. If you don't find what you want here you could expand out a little bit:

### NOTE

Technical support includes viruses, and full-text engines are useful in searching for virus information. If you get something you think is a virus, extract an unusual line from the virus e-mail and search for it with the word "virus" ("`this is a very excite game`" virus). Unless the virus is brand new, this'll pop up some information.

hip "German Shepherds"

but no way can you get more general than that if you're searching a full-text engine. You'll just get too many results!

## Searchable Subject Indexes

If you're just searching for general information about a breed, using a searchable subject index is a much better way to go. Just search for the name of the breed. In most cases, except when it's an incredibly obscure breed or one your friend made up to play with your mind, you'll find a Yahoo category for them that you can work from.

## Searching for Biographical Information for a Term Paper

Biographical information is tricky. On one hand you want enough data that you can learn about the person for your term paper. On the other hand, you want credible data in limited, usable quantities.

The Principle of Onions will apply a little differently here. Instead of trying to use very specific query words, you'll try to use special syntaxes so you're narrowing your query down to credible data.

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### Full-Text Engines

Let's search for Sally Ride, first woman in space. "Sally Ride" biography is actually a pretty narrow query, but you can narrow the search even more by excluding .com sites:

"Sally Ride" biography -site:com

When you do that you'll get a lot of Sally Ride material, and a lot of it is more oriented toward credible sources (NASA, ThinkQuest, etc.). And you're not finding ads for Sally Ride memorial plates or whatever.

The more famous the person is, the more you may find yourself having to get narrow (perhaps this is the Principle of Famous Onions). For example, if you search for George Washington:

"George Washington" biography -site:com

you will still get over 60,000 results. Relevant ones will pop right up, but you may decide that you want more detailed information. In that case, you may want to add a few more words that reflect what you're looking for:

"George Washington" president "cherry tree" -site:com

While these query words don't narrow your search in an appreciable way—they're too general—they will bring a different set of search results to the top. You can rotate the query words, bringing in different keywords that coincide with popular ideas about George Washington's life, and see how the results change.

## Searchable Subject Indexes

When you're searching for a very famous person, searching for them in a searchable subject index is absolutely the way to go. In this case you don't need to make much of an onion at all. Just search for the name and the word "biography":

"George Washington" biography

You'll see that George Washington has his own category with all the information you could use.

Sometimes it's hard to get the idea that you should immediately narrow down your query as much as possible in the hope of getting good results. You might be worried that you won't find all the information you're looking for. And you might not want to spend a lot of time trying to map out the perfect query.

Trust me, it will save you time in the end. The time you spend now to specify a narrow query will limit the amount of time you'll have to spend slogging through result pages. Furthermore, the Web is only going to get bigger. The habits you learn now to narrow down your search results are going to help you when you have to worry about slogging through twenty billion Web pages instead of only four billion.