search

RESEARCH ONLINE

Jessica Margolin

(1) Get Organized

(2) Search quickly

(3) Evaluate Results

Is Waldo Even On The Page?

The Three Components of a Search

Get organized.

The first thing to do when you use a search engine is to get organized.

Before you start, **make a new bookmark folder**. You can call it the project name, or you can call it by the date, or some combination.

You also need to be able to phrase what you're looking for specifically. Make yourself comfortable, and then **identify the specific questions you need to answer** in order to write your report or whatever it is you need to do. Write them down on paper - it will make your life easier and remind you of what you're looking for when you start to get tired.

So if you're going to do a report about giraffes, you'll probably find it easiest to think of the What-Where-Why-When-How questions: What is a giraffe? Where do they live? Why do they live there? When did giraffes come on the scene (what's their taxonomy)? and How do they live? You might look at this and think, "Hmmm, they live in Africa, but they also live in zoos," and then you'll need to write questions for that too: Why do they live in zoos? When did they start coming into zoos and how? Then you might want to do a future version of all that: What will become of giraffes? Where will they go? Why will they have to go there? When will whatever tragedy befall them happen? and How will it all happen?

Note that there are other ways to write reports: you can certainly write a persuasive essay about giraffes, or analyze depictions of giraffes in literature and art, or talk about the dream symbolism of giraffes in Jungian analysis. In those cases, you'll have more specific questions. The"who-what-where-when-why-how" is simply a familiar starting point.

Search quickly.

There are two different ways to search online: using a search engine, and using a resource. This section will specifically talk about using a search engine, like Google.com. We'll walk through the process and then I'll do an example.
In Part 2, we'll talk about specific sites that can be helpful in some cases.

First, go to the search engine. If you only know about Google, you can type "search engine" into the search bar at http://www.google.com. One of the more interesting sites that comes up is searchenginewatch.com.

At your search engine, type words related to your first question into the search area.

Note that if you put your search terms, "called "Keywords," in quotation marks, the engine will search for that precise phrase. If you go to Google's advanced search, you can find a lot more options. If you check out the Help Center you can learn even more. Try:

```
www.google.com/advanced_search?hl=en
www.google.com/support/
www.google.com/help/refinesearch.html
```

Frankly, I find quotation marks useful, but other methods usually not worth the bother unless I'm knowledgeable already in the area of my search.

If you have a laptop and a wi-fi connection, you can search outside from a free access point. This isn't a free access point; this is Arlington National Cemetery.

Scan the URLs that come up on the first search results page. **You are looking for something that will answer your question, or help you figure out how to ask a better one.** After a while you'll be able to tell what's going to be a news story, what's going to be a big advertising site, and what might be actual real-life information. See how quickly you can identify what kind of site it's going to be.

If the first search results page isn't full of link that look relevant, then you need to **change your search terms**. Go ahead and look at the one or two things that come up that look okay, but **don't get too bogged down**. I often don't go on to the second page unless the first page is very useful (in which case I keep going until I've either found out enough or the results are starting to get irrelevant).

Keep at it - try new terms until you find something promising, and keep an eye out for **the right words to use in your search**. But most important, practice scanning! Remember: just read the first sentence of each paragraph.

Skip to Part 2 below and **try alternate methods** if you search many times and just aren't getting what you need. (Or start with Part 2 methods! You don't need to start with a search engine; it's just the most general.)

Evaluate Results.

The quickest and easiest way to end up with "a good idea" of whether the answer to your question is accurate or not is to see whether the results you get from one website are in agreement with other websites. The good news is that once you have one answer to your question it's much easier to search, because you can use the answer as keywords.

The bad news is that this doesn't actually prove the answer you found is correct; it just proves it's popular. In some cases you'll have to be much more diligent than this, so for those cases, I'll explain.

How to Search:
Continually improve your keywords and Skim, Skim, Skim!

1. Start
Think up an actual question. Make a bookmark folder.

2. Type in keywords
As detailed as possible.

3. Scan the results
No results? Drop the quotation marks, or remove a keyword. Too much junk? Try different words.

4. Scan the sites
When you find a link worth clicking through, read only the first sentence or so of each paragraph to make sure you're in the right place.

5. Look for new keywords
Even sites that are too detailed or not quite right in some other way might tip you off to the right jargon to use.
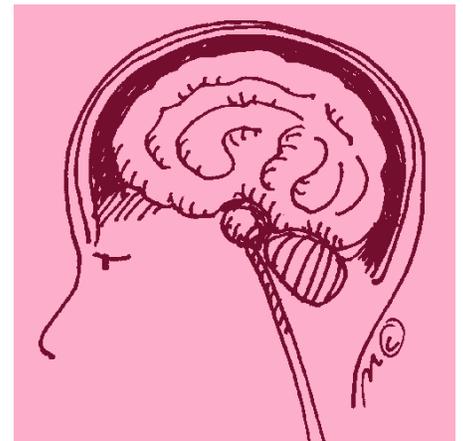
6. Repeat
But not forever; only as long as you're making progress.

7. Bookmark everything
Keep looking for an "easy" answer, but don't lose track of those "possibly okay" sites.

8. Walk Away
Try the methods from Part 2.

To validate the actual information you receive, you need to know whether the information is directly reported by someone (they either did an experiment or witnessed something), or whether they're reporting on what someone else did.

If they're directly reporting something, you can either check it out yourself if possible, or you can review the methods they used to make sure that they didn't do anything you think might make their results invalid (this is most commonly done when you're reading other peoples' research papers). If you have any questions, you should contact them.

If they're reporting about what someone else did, then you need to find out who that person is and go to that source directly. (This is why you write bibliographies, of course: so other people can work backwards and learn what you learned.) If that source was also just repeating someone else, you have to follow it again. As you can imagine, this can be like trying to trace back the beginning of an urban legend! But realistically, things like "how tall is a giraffe?" is so widely known that just making sure that the height you have found in answer to that question is the same as the height everyone else uses is fine.

The other thing to have an idea about is how credible that actual source is. Everyone knows certain super-market tabloids have wild stories and we don't think they're true. But if The Washington Post reports a story, people tend to believe it. If you are concerned about your source, what you do is a new search where the question is "How reliable is The Washington Post?" for example.

So unless you can trace information back to the original source, it's always going to be not-quite-proven. But if you document where you found the information, that's often good enough, particularly if took some effort to make sure it wasn't completely pulled out of the air.

Example.

As an example, I'm going to try to find a list of public, wireless access areas where I live (Fremont, CA), that preferably are free. So the question of course is, "Where is there public wireless access in Fremont?"

Notice that when I do this search part of the process is being organized and part of the process is going with my instinct. One of the things you may find once you get used to scanning well is that you're not even thinking about what you're reading, you just have a sense of whether it's relevant or not. At that point you might be able to cover several pages of text each minute (not to understand it, but just to know whether you want to read it or not).
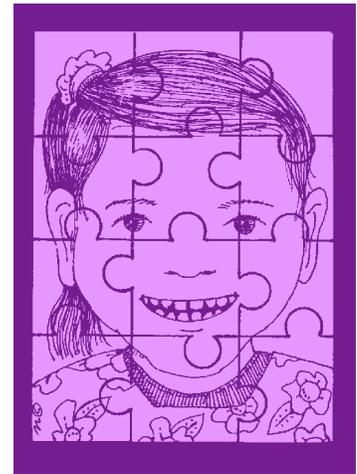
I can't overemphasize how important this is! When you go to lunch and there are many places to sit, don't you quickly look over the scene and just "know" where to go even if you don't have close friends around? This is the same thing.

- First, I go to Google. I think, "Be specific," so I type "wireless access in Fremont" into the search field.

- No results; too narrow. So, I remove the quotation marks which will mean that any of the words "wireless, access, in, fremont" in any order will now be in the search results.

- Now I get 913,000 results from Google. Obviously, there's no way that there are 913,000 legitimate websites on this topic! I'll be lucky if I find 20. **A quick look** at what we do get shows a few articles, some places called Fremont that aren't in California, and other stuff that makes me think that this wasn't a very good search.

- So instead of even bothering to sift through all that junk, I decide to do a new search. I put quotes around "wireless access" and then, seperately put them around "Fremont, CA" (Note: if you want you can do a search on local.google, but I didn't because I didn't want to be that specific.... so let's keep going.) So I have

      "wireless access" "Fremont, CA"

   This seems like a good idea, but what we get out of it is a long list of companies that are located in Fremont that manufacture products related to wireless access. That might be useful some day but not now.

- Note on the right side of the page there are ads.   On my search -- they change! -- there's infobeagle.com. I've never heard of it. I go there -- I just thought it looked better than the other ads on a hunch, and this page was otherwise useless. At the top of infobeagle are more ads; skip those. The first sentence of the first paragraph talks about standards; skip that. Highlighted Wi-Fi Links? Now that looks promising. Below that is "Wi-Fi HotSpot List - Directory of public Wi-Fi access points"

- So, first, I need to figure out if this list makes sense but even if it doesn't I've gotten much closer to answering my question, because I have better search terms! "Wi-fi hotspot" means the same thing to me as "wireless access," but I'll get much better results. So first let's check that link, and if it doesn't work, then we'll go back and revise the search again.

- Going to that link, I fill out their online form by entering my address and then check to make sure that the automatically filled fields are okay. They're not, actually; the distance from the address it gives results for is only 1 mile. I change that to 10 miles. Also, I choose wi-fi for all carriers (e.g. T-mobile) because that will give me the most results and first I want to see what that is before I narrow it down in order to evaluate the response. When I press go, I see a pretty good list. However I happen to know that Mission Peak Coffee has free wi-fi, and it's not on the list. So I bookmark this in my new folder called "wi-fi research" and go back to search on the new term.

- I enter "free wi-fi hotspot" and "Fremont, CA" have to scroll 2/3 down the page to find another web-site that looks plausible. Again, I enter an address and they suggest solutions, but there's no im-provement from my other results.

- So I decide the list I have is probably good enough for me, but just to push a little bit further I do a few more things, which I'll explain further in Part 2. I check out a different search engine with one brief search and I go to wikipedia.org. On wikipedia, I type in "wi-fi," and follow a link under External Links to a blog which had a bunch of links but they didn't look like they'd be any different from any-thing else I'd tried; however, they did have a link to googlemaps, which was different.   So I followed that link to googlemaps, and typing in "wi-fi hotspot" gave me a map with every place I'd seen so far -- including Mission Coffee -- on it. And that answered my question.

The Basics

Q: What is the Internet?	A: A bunch of computers linked together. The links can be cable in the ground ("broadband"), telephone lines ("modem," or "DSL"), or wireless (cell phone, "wi-fi"). the computers at one end of a chain link have files on it, and at the other end of the chain have a way to view the files. The files are sent electronically. Really want to know? With pictures? Go to: `http://computer.howstuffworks.com/internet-infrastructure.htm`
Q: What is a Search Engine?	A: Because all these computers have so much information on them, different com-panies have emerged to help search through all the information. More? `http://computer.howstuffworks.com/search-engine.htm`
Q: Why is searching so hard?	A: Because there's so much. It takes a while to learn how to search quickly and effectively, but it's an important skill to learn.
Q: OMG!!!11!1	A: For everything from how Xbox Live works to how MP3 works (and how e-mail, eBay, and the Search for extra-Terrestrial Intelligence all work) go to: `http://computer.howstuffworks.com/internet-channel.htm`

You don't only have a hammer!

wikipedia.org

I often start with Wikipedia. Before Google.

It's great, because you can just type in one noun, and get a whole article about the basic concepts, and go from there. Remember that wikipedia is just like listening to random people talking, so if you need to be accurate you'll have to double-check what they say, but this is a great way to get started. External links are at the bottom and usually helpful.

howstuffworks.com

The howstuffworks.com site is another really good place to start when you're new to a topic. I referenced it frequently in the sidebar on the internet, but it covers, unsurprisingly, how things work. This includes

       How toilets work
       How blue screens in the movies work
       How credit cards work

del.icio.us

This is a website where people bookmark links publicly. (So it's particularly useful if you have a group project and need to share links.) You can set up your browser to do this when you have time.

It's also a great search engine, for example you can type in "wi-fi" and notice that pink-highlighted responses show how many other people saved specific links. I can go to the website, or if I click on "saved by 5 other people," I'll get the list of people, and check out the other sites they list. Sometimes you can find an expert this way! You can also see how each person tags their pages, so you can tell why it's important to them. In general, the more detailed the tags, the more that person has been looking into that topic in-depth.

By the way, type http://del.icio.us ...there's no "www."

technorati.com

Blogs can now be searched in several places, but one of the best is technorati.com. To search technorati, be sure you narrow your results to English and note that you can move the slider to the right for "a lot of authority" and get fewer results. Notice where it says "sponsored results" and realize that means ads.

An example of a blog in Project On Government Oversight (pogo). It can be a great resource for current event types of projects: http://pogoblog.typepad.com/ , particularly http://pogo.org/p/x/investigations.html

- - - - - - - - - - - - -

first.gov

This is the United States government information portal. Note in particular, under first.gov, there is a "reference center" there's data and statistics. You can also go to local government sites, for example

http://first.gov/
http://www.fremont.gov/default.htm
http://www.acgov.org/ (alameda county)
http://www.ca.gov (california state)
http://www.dol.gov/dol/findit.htm (bureau of labor and statistics)

- - - - - - - - - - - - -

specialty searches

Directories
http://dmoz.org
http://dir.yahoo.com/

Current news
http://www.newslookup.com
http://googlenews.com
http://www.topix.com
http://www.world-newspapers.com/alternative-news.html

Images
http://IMAGES.google.com
http://flickr.com

Part 3: What's the Buzz?

And soon there will be more ways to find out more things from more places. Some of the best methods of keeping up with this is to find one or two experts (magazines or blogs) and just keep tabs on what they say. Most magazines are online, at least in part.

http://www.wired.com/technology.html - forward looking technology news
http://www.cnet.com/ - basic consumer technology news
http://www.slashdot.com - completely cool but very techie