When given a research assignment the place where most students start their research is on Google. Unfortunately, many students will never look beyond the first page or two of results. They may try to alter their search terms, but if a student hasn’t been taught the proper techniques, they will often end up seeing the same links over and over again. The tools and techniques outlined in the following pages will help you help your students improve their Internet search strategies.
Teaching Internet Search Strategies

Resources teachers can use to teach internet search strategies.

The Boolify Project

The Boolify Project is a simple jigsaw game that teaches students the effects of "and," "or," and "not" on Internet search results.

The game is simple enough for elementary school students to benefit from, at the same time the game provides valuable lessons for high school students. To see the effects of operator words on a search, students drag and drop operator words into the jigsaw puzzle.

In addition to the Boolify game, the Boolify Project has links to teaching resources and videos explaining the effects of operator words on Internet search results.

You can find The Boolify Project at http://www.boolify.org

The Boolean Machine

Rockwell-Schrock’s Boolean Machine is a simple way to show students how the terms "and", "or", "not" affect the outcome of a search.

The Boolean Machine is a simple program to use. To use the Boolean Machine simply hold your mouse pointer over each word and you will see an explanation of how each operator word affects the search.

The Boolean Machine was created in part by noted technology integration expert Kathy Schrock.

You can find the Boolean Machine at http://kathyschrock.net/rbs3K/boolean/

Common Craft Videos

Common Craft produces excellent videos that take potentially confusing topics and breaks them down into simple terms.

Common Craft’s Web Search Strategies in Plain English is an excellent video for introducing students to a variety of Internet search strategies.

Web Search Strategies in Plain English explains how search engines work, how to pick search words, how to use quotation marks in a search, and how to combine search methods.

You can find the video at http://commoncraft.com/search
Refinement Tools Within Google

Google offers some excellent search refinement tools that a lot of teachers and students don’t take advantage of. These are three of the best.

**Related Search**

Related search is probably the most obvious search altering option offered by Google, but because the related search terms are usually buried at the bottom of the page, students often don’t click on the options.

A lot of students when given an open-ended research assignment struggle to pick the right terms to enter into a search. Often once they’ve entered a set of terms, they’re unhappy with the results. Direct them to try the related search terms that are automatically generated by Google.

A small tweak in the choice of search terms, particularly a tweet of operator words, can yield significantly different results. Each time students tweaks their search terms, new related search terms appear.

**Wonder Wheel**

Wonder Wheel is not as easy to find as the “related search” option on Google. To locate Wonder Wheel, click the “more options” link that appears at the top of any list of Google results. Wonder Wheel is then found in the list on the left side of the page.

Wonder Wheel takes the concept of web and applies it to search refinement. Enter any search term in Wonder Wheel and that term will appear in the center of the web. Each branch of the web contains a related search term. Click one of those terms and a new web will be generated and linked to the original web. It’s a good way for student to learn about connections between terms.

You can see a video of Wonder Wheel in action by clicking here.


**Timeline**

Google’s Timeline option allows users to refine their searches by the dates referenced in the online materials. Timeline displays a chart on which users can click to find materials referencing a particular date or range of dates.

Timeline is particularly useful for history students.

Related to Timeline is a new option for refining search results by the date on which something was posted online. Users can specify that they want results only from the last day, week, month, year, or they can specify a particular date or range of dates. Click the “show options” link after entering your search terms, to find this option.
Firefox Add-ons to Improve Your Search Experience

These Firefox add-ons and bookmarklets can improve your Internet search experience.

Googlepedia

Increasingly, I’m seeing students start their Internet research on Wikipedia before going to Google. There’s nothing inherently wrong with that, but often that process yields duplicated information. That’s where Googlepedia can be useful.

Googlepedia is a Firefox add-on that allows users to see Google search results side by side with Wikipedia entries. To use Googlepedia simply enter a search term in Google and if there are matching Wikipedia entries they will appear on the right hand side of your browser window.

You can find Googlepedia by clicking here or by searching in the Firefox adds-on directory. This is the url for Googlepedia: https://addons.mozilla.org/en-US/firefox/addon/2517

Ambiently

Do you remember the old days of doing academic research? You know, back when to find content related to what you were reading you looked in the book’s bibliography. Ambiently takes that concept and applies it to web research.

Ambiently is a browser bookmarklet that allows you to quickly find websites related to the one you're currently viewing. For example, if I'm viewing a website about fly fishing in Maine I can click the Ambient Page bookmarklet and I will be shown a list of websites that are also about fly fishing in Maine. Installing Ambiently is a simple matter of dragging and dropping the Ambient Page bookmarklet to your browser's toolbar.

Find Ambiently at http://www.ambiently.com

Cloudlet

Cloudlet is a free Firefox extension that helps users refine Google search results through the use of a tag cloud. Cloudlet takes just a minute to install. Cloudlet doesn't clutter your browser's toolbar because it only appears when you use Google.

Cloudlet produces a tag cloud related to your search terms. Once you have installed Cloudlet simply enter search terms in Google as you normally would. To refine your search simply click on any of the tags in the cloud generated by Cloudlet.


To get Cloudlet click here or enter this url into your browser: http://www.getcloudlet.com/
Kid-Friendly Search Environments

Three places designed to provide children and families with a safe and appropriate Internet searching environment.

Kido’z

The user interface of Kido’z is designed to be used by children as young as three. Children can navigate Kido’z using kid-friendly icons. Kido’z tries to make content easy to find by dividing it into three categories: games, videos, and websites.

Kido’z gives parents the power to select the websites that their children can view. After installing Kido’z, parents set an administrative password and begin specifying the websites that their children see.

If parents are looking for new web content that their children can safely enjoy, Kido’z will offer suggestions based on the age, gender, and native language of the child.

You can find Kido’z by pointing your browser to http://kidoz.net

KidRex

KidRex is a kid-safe search engine powered by Google custom search. KidRex uses a combination of Google’s safe search mode and their own database of filtered keywords, phrases, and websites to provide a family-friendly search environment.

In the event that a questionable website does get past the filters, KidRex has a site removal request form.

You can find KidRex at http://www.kidrex.org/

Quintura for Kids

Quintura for Kids is a visual search engine designed for kids. Quintura uses a combination of icons and text to provide students with an easy way to search for information on the Internet. By placing their mouse pointer on a word or picture, students will see subcategories from which to select information.

With a minimum of direct instruction, young students can begin searching the web. Quintura provides a good platform for introducing students to searching for information on the Internet.

You can find Quintura at http://quinturakids.com
Real-time Search Engines

Real-time search is the newest category of Internet search. Real-time search engines draw results from traditional sources as well as social networks like Twitter and social bookmarking sites like Delicious. These search engines provide you with the most up-to-date and most discussed items on the web.

Scoopler

Scoopler is a search engine that allows you to simultaneously search Delicious, Digg, Twitter, and Flickr in one place.

Using Scoopler is quite simple, enter a search term and you'll find results from all four of those services. Results are sorted into two columns, "live" which provides the most recently shared links and "popular" which is based on the number of times a link has been shared.

Scoopler and other real-time search engines are good for finding new and popular teaching resources. For teachers I liken shared bookmarks on the web to shared lesson plans within a school building.

You can find Scoopler at http://scoopler.com

One Riot

OneRiot is a search engine that pulls its search results from Twitter, Digg, and other social sharing services.

OneRiot lists search results based on their current popularity. This means that search results are based on what are currently the most shared and discussed links rather than all-time rankings. This is particularly useful if having current research or current news is more important to your Internet search than having possibly dated material.

OneRiot can be a good place for students to find and track developments in current news stories. OneRiot is also useful for students that are searching for the latest news to include in a report about a niche topic in science or economics.

Check out OneRiot at http://oneriot.com

Collecta

Collecta is a real-time search engine that draws its results from Twitter, YouTube, and various blogs and news websites.

Like Scoopler and OneRiot, Collecta is useful for those times when having the most current information on a topic is important.

Twitter Search

A lot of Web 2.0 and social media experts claim that Twitter is the first place they go to when they’re looking for information. Even if you don’t have a Twitter account, you can still search Twitter to see what people are talking about and to see the links they’re sharing. To do this visit http://search.twitter.com
Explanations and Disclaimers

This guide is by no means a comprehensive list of every Internet search strategy. Nor does it list every search engine. Most notably Microsoft’s Bing and Yahoo’s search engine were left out of the discussion. This decision was based on data from Compete and TechCrunch indicating that Google’s market share of searches was near 65% at the end of 2008 and has since increased. Also of note, this guide did not include Wolfram Alpha which is a very promising alternative to Google, but is yet to grab significant market share.

The decisions to include these tools were entirely my own. I do not have any affiliations, financial or otherwise, with any of the companies whose services are mentioned in this

About the Author

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Richard is the author of Free Technology for Teachers a blog that has a daily readership of 13,000+ subscribers. In 2008, Free Technology for Teachers was awarded an EduBlogs award for the best resource sharing blog.

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