TechMatters: Search and Search-ability: Google Custom Search & Library Instruction

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"**I**t is a truth universally acknowledged that a student in need of information will almost always search Google."

With apologies to Jane Austen

Students love Google. Librarians, and in particular instruction librarians, tend to have a love / hate relationship with this most popular of search engines. We love it because it is easy to use, and of all the current web search tools, it often does do the best job of directing users to relevant information. But we also hate it because its ubiquitous popularity makes it very difficult to convince students of the benefits of information literacy concepts such as using subject specific search tools, learning to search using controlled vocabularies, and even the need to evaluate information sources.

In October 2006, Google introduced a new search feature, dubbed "Google Custom Search," that may help to resolve some of these ambiguous feelings towards Google. In fact, I can foresee classroom applications for this tool that might actually help students grasp the importance of the concepts outlined above, all while craftily allowing them to use their favorite search tool to achieve that goal.

What is Google Custom Search?

Simply put, Google Custom Search allows individuals to create their own search tool using Google's robust indexing and search algorithm. Custom Search allows creators to specify a list of sites they wish to search or give preference to in search results, exclude particular sites from search results, collaborate with others to add sites to the search tool, and even annotate search results to improve retrieval. Once created, Google hosts a search page for each custom search tool, and creators may also choose to embed their custom search tool into their own web pages.

Creating a New Custom Search Tool

Setting up a new custom search tool is a fairly straightforward procedure. If you haven't done so already, you will need to join the Google Co-op by setting up an account which requires a very limited amount of information including your name, a current e-mail address, your country of residence, and a password.

Once you have an account, you may begin the process of creating your custom search tool. To get started, you will need to provide a name for your new search tool, a brief description of the type of information that will be indexed, and a list of keywords that describe the content of your search engine. You will then be asked to provide a list of web sites you wish to include in your search tool. You may include as many or as few as you wish, with the option to add more in the future. You will also be asked to specify whether you wish your search tool to search only these sites, or to search the entire web but to give preference to results from your selected sites. Complete the process by testing your new tool using the "Preview" search box, then agree to the terms of service and the process is complete!

Further Customizations

Once you have created a new search tool, you will have access to an administrative control panel that will allow you to further modify and customize your search engine.

Collaboration

Collaboration is a feature that gives you the option of allowing others to help you identify appropriate sites for your search tool. You may either choose to invite specific individuals to contribute, or you may opt to allow individuals to volunteer to offer assistance. If you decide to allow volunteers, you will still have the option of accepting or rejecting any individual's offer of assistance. Once accepted, contributors may add, exclude, or annotate sites in your search tool in an effort to improve your search tool.

Refinements

The refinements feature allows you to annotate your selected sites with labels that will allow users to refine search results. The labels that you create will appear as a list of links above the search results (Figure 1). When a user clicks on a link, the sites that have been labeled with these refinements are given priority in the search results.
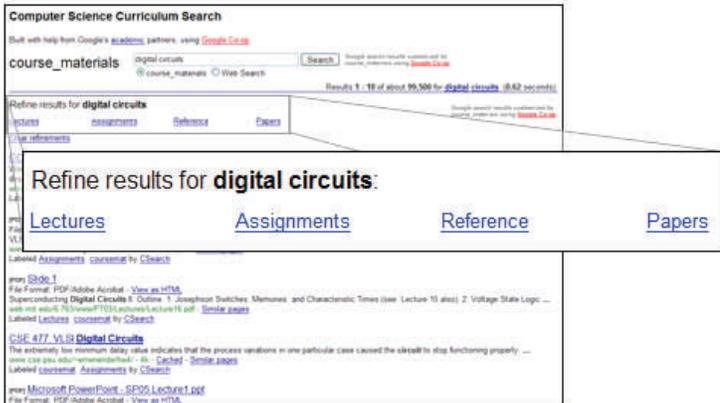
Figure 1: Refinement labels for the Computer Science Curriculum Search

Source: Google Custom Search Engine – Control Panel – Refinements web page

Google recommends creating labels that complement the existing search algorithms by providing information about the site that is difficult to capture using normal search terms. Suggestions include labels that identify audience (i.e "for_students", "for_patients"), source type (i.e. university, government), document type (i.e. maps, biographies), and even subject.

Look & Feel

Google allows considerable latitude to creators regarding the look and feel of a custom search tool. A logo may be added and the colors on the results page can be customized to match the look & feel of your local web site. In addition, both the search box and search result screen may be embedded within your own local site by pasting some code snippets provided by Google.

Custom Search as an Instructional Tool

As previously mentioned, I am of the opinion that Google Custom Search has potential as a valuable instructional tool for teaching a variety of information literacy concepts.

The value of subject specific search tools

The most obvious and straightforward instructional use for this tool is to allow an instruction librarian to easily and quickly create a specialized search engine for a specific bibliographic instruction session. A custom search tool could be developed to support a specific research assignment or perhaps just the broader course subject area (i.e. American history). Such a tool could be placed on a course web site, or even embedded within a

class shell within a course management system for students in the class to access. An assignment might ask students to compare and assess the quality of the results that they retrieve using a search tool customized to search only reliable web sites within their area of study and a comparable search of the open web.

Evaluating web sources

If you wanted to take the concept one step further, and incorporate a collaborative component into your instructional approach, you might invite students in the class to participate as contributors, working together to improve the course search tool. After meeting with the students to introduce them to the concept of web site evaluation and to teach them how to judge the relevance and reliability of such sites, they might then be required to add a certain number of web sites to the custom search tool that meet the evaluative criteria discussed during the instructional session. Not only would this project teach students the importance of evaluating the information that they use for research purposes, but it would also result in the creation of a more robust and useful research tool for their class.

Using a controlled vocabulary to improve search results

If you have the luxury of teaching a for-credit information literacy course, you might increase your expectations for the project even further and require students to develop appropriate search refinements and labels for their custom search engine. By working together to develop an agreed upon set of appropriate and useful search labels, students might begin to understand both the challenges of developing such a system as well as the advantages and added value that a well-designed human-mediated indexing system can provide to a searcher.

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These are just a sampling of possible ideas for instructional uses for this technology. Now that you are aware of Google Custom Search, and know how easy it is to create a customized search engine, I have no doubt that you will be able to think of many more instructional uses for this new tool.