Internet Sites of Interest

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Alternative ways to search PubMed

PubMed and Medline are not exactly the same – there is material in PubMed that is not included in Medline (National Library of Medicine, 2006) – but PubMed is effectively a freely available interface to Medline.

PubMed is designed to be user friendly and to be used by non expert searchers. For example, it maps your search terms to MeSH automatically. But PubMed’s standard interface does not suit some specialist users, and several people have written alternative interfaces that enable you to do things like cluster results, look for links between results, or map terms to specialist lists of terms. The NLM itself is also developing some alternative interfaces.

Here are some of those alternative interfaces. I am grateful to David Rothman’s blog at http://davidrothman.net/2006/10/19/some-alternative-interfaces-and-mashups-for-medlibs/, and also to Neurotransmitter.net (I found this via David Rothman’s blog) at http://www.neurotransmitter.net/metadb/index.php?catid=65. The NeuroTransmitter list includes references to articles about some of these interfaces, for further reading.

All links were checked on 16th February 2007.

ARROWSMITH
http://arrowsmith.psych.uic.edu/arrowsmith_uic/index.html
The ARROWSMITH page offers several tools to aid your use of PubMed, including a list of abbreviations compiled from Medline titles and abstracts, and a tool for author disambiguation. ARROWSMITH itself is a tool to find concepts that occur in two separate sets of articles. Each search is done using the standard PubMed interface (with the extra features appearing within that interface), and ARROWSMITH then compares the sets to see if there are any common concepts. You can look at the articles where those concepts occur.

askMEDLINE
This has been written by the NLM itself and is a free text natural language interface to PubMed. It works only if you use English language. It does not seem to be possible to find out exactly what search has been done, but this is an interesting idea.

BabelMeSH
http://babelmesh.nlm.nih.gov/
Another NLM interface, this presents links to search interfaces in Arabic, Chinese, English, French, German, Italian, Japanese, Portuguese, Russian and Spanish. You select your language, and then enter a medical term or phrase (rather than natural language) in that language. The search box is a kind of drop down box, so related phrases are suggested as you type. I chose French, and entered “grippe”. Various phrases starting with “grippe” were suggested, and you can choose from that list. At the top of your results list you can see which MeSH term your entry term mapped to. There are links to abstracts, full text and related articles.
BabelMeSH PICO interface, at http://babelmesh.nlm.nih.gov/pico.php, which is described below under Search Medline/PubMed via PICO.

**ClusterMed**  
http://demos.vivisimo.com/clustermed  
ClusterMed uses the Vivisimo search engine to cluster results. The largest clusters are displayed first, but you can choose to display more. You can also choose to cluster based on titles, abstracts and MeSH, or titles and abstracts alone.

**eTBlast**  
http://invention.swmed.edu/etblast/index.shtml  
eTBlast will search for articles related to a known article, but using a whole paragraph of text, which you can copy and paste in. It then finds similar abstracts. I tried this with the abstract of a paper on respiratory infections in air travellers (Luna et al., 2007) and then with one paragraph from the conclusions. Display of results can take some time, so there is a counter on the page that counts down from 10 seconds, and does so until your results are ready. You can choose to have the results emailed to you, which might be a better use of your time – I did not try this! I received a list of references related to respiratory infections both times, but air travel did not seem to feature strongly.

**HubMed**  
http://www.hubmed.org/  
HubMed provides more routes to full text, and also enables you to cluster search results. The additional routes to full text include Google Scholar and SFX, but to see them you need to be viewing the abstract in HubMed. I liked the Citation Finder feature. You can copy and paste a list of references from PDF, and it will find those references in PubMed, enabling you to go to abstracts, full text, and to use the tagging and clustering features. I tried this with the six references from an article about HubMed (Eaton, 2006), and it found four of them immediately. For the other two it gave me editable details. Editing those details and resubmitting found those references as well.

**Search Medline/PubMed via PICO**  
This is another NLM interface. You specify the Patient, Intervention, Comparison (if any) and Outcome (if any), and the type of publication that you want to retrieve. You can also specify age group and gender. You cannot view results in the standard PubMed interface, but there are links to abstract, full text and related articles. There is a multilanguage interface to this (called PICO Linguist) at http://babelmesh.nlm.nih.gov/pico.php, which enables you to select your input language and also the language of the articles you find.

**SLIM (Slider Interface for MEDLINE/PubMed searches)**  
http://pmi.nlm.nih.gov/slim/  
SLIM is another NLM interface, which uses sliders to set the various search parameters. You can preview the number of search results before you actually search. Results are not presented in the standard PubMed interface, but there are links for each result to abstract, related, full text, and to the PubMed record.

**Xplormed**  
http://www.ogic.ca/projects/xplormed/  
Xplormed enables you to explore a set of abstracts, and look at the significant words contained there, and the relationships between those words. You can input a set of abstracts by conducting a search of PubMed (through the Xplormed interface), by
entering PMIDs, or by giving Xplormed a file of abstracts in one of a number of set formats. Xplormed will first sort the references by MeSH category, and then will look at the categories that you select to determine significant words, and then words that occur close together.

**More information**

This is a selective list – have a look at the lists detailed at the start of this article for more interfaces. Or click [here](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=search&DB=pubmed&term=pubmed[ti]) to run a PubMed search about PubMed, which will find articles about interfaces (as well as articles about searching PubMed in general). If the link does not work, copy and paste this link into your browser:


**References**


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