

# Spot the difference – finding the right tool

**Gillian Doran provides a guide to the best way to find the information you want on the world wide web**



**WITH SO MUCH INFORMATION** available on the world wide web, it can be difficult to access the information you want in an efficient manner. In order to search efficiently you need to be aware of the differences between the available search tools. Do you know the difference between a reference database and a search engine, an EBM site versus a blog? In this article I am going to discuss these tools so you can spot the difference and know which tool to use for what purpose, to best assist your information needs.

#### Reference database

A reference database is simply that, ie. a database that provides references to journal articles that have been published in hard copy and/or online. Probably the best known example of a reference database on the web is PubMed ([www.pubmed.gov](http://www.pubmed.gov)) provided by the US National Library of Medicine. It covers material from the 1950s to the present.

PubMed does not generally provide links to full-text articles; it is simply meant to provide you with the correct reference. However, PubMed is increasingly providing weblinks to outside sources, eg. publishers whose journals are available online. Some of these publishers charge a fee to access an article while others do not and some organisations give free access to their journals; for example the *American Family Physician* and the *Australian Family Physician*. When a free article is listed in PubMed it will indicate it by a green or orange icon and users then know that they can freely access the full text paper online.

Other reference databases include CINAHL (Cumulative Index to Nursing and Allied Health Literature), PsycINFO and EMBASE. Unlike PubMed these are not freely available on the web as they are subscription-based databases that institutions/organisations have to pay for if they require access.

PubMed is a vital search tool, particularly when searching for research in any given clinical area, review articles and some guidelines.

#### Search engines

The search engine that web users are very familiar with is Google. Other search engines include Yahoo, AltaVista and Northern Light. They all do similar functions, ie. they send ‘spiders’ to search the web, they build an index and then when needed they retrieve information and present those results in the format of web links. The more information they retrieve from their web index the more information is available to web users.

However, a study in 1999 by Lawrence and Giles showed that even with these powerful search engines only 16% of

the actual information available on the web was retrieved by them.<sup>1</sup> Since then, technology and search engines have developed so much that by 2005 Gulli and Signorini estimated that 11.5 billion web pages were indexed.<sup>2</sup>

Search engines often provide other features as part of their services; these include email, eg. gmail via Google and Yahoo mail via Yahoo.

Google also provides another feature for those searching for ‘academic/scholarly’ material. This feature is called Google Scholar and is similar to using the usual search engines, ie. you simply enter the keywords you wish to search. The difference between Google and Google Scholar is that the results found in Google can contain anything from links to organisations, to personal websites, to journal articles; whereas the results provided by Google Scholar should cover more academic, governmental, educational-type sites.

#### Meta search engine

A meta search engine is also available in the form of Dogpile ([www.dogpile.com](http://www.dogpile.com)). Dogpile collects and produces the results from several search engines all at once. Coverage includes Yahoo, Google, Ask.com and LookSmart.

Search engines are useful tools. However, you must be prepared to retrieve a lot of information on any given topic from varying sources of varying quality. The Search Engine will only be as good as the index it has developed. If the index is not kept updated then links to sources can become obsolete.

#### Evidence-based medicine databases/websites

Evidence-based medicine (EBM) websites cover material that has been produced using the principles of EBM. These websites have much less material on their sites but are useful for locating guidelines on topics. A very useful database, in my opinion, is [www.tripdatabase.com](http://www.tripdatabase.com)

TRIP means ‘turning research into practice’. By searching TRIP it means users do not have to individually search many other websites including Bandolier, ACP Journal Club, Cochrane, SIGN and Poems. TRIP pulls all the information from the aforementioned sources as well as many others and displays the results in an easily accessible fashion. Unlike the PubMed database mentioned above, TRIP usually provides free full-text links to the information. TRIP is an excellent resource for guidelines.

#### The Cochrane Library

The Cochrane Library is a collection of databases that contains high-quality, independent evidence to inform healthcare decision-making. Cochrane reviews represent the highest level of evidence on which to base clinical treatment



## Search tools and when to use them

Type of Search Tool	Search tool	When to use
Reference Database	PubMed	To search for research on a particular topic To find references to a particular article/s To find review articles
Search Engine	Google/Yahoo	To find relevant websites to the keywords entered
EBM Database	TRIP	To locate guidelines on a particular topic To find patient information leaflets To answer clinical questions

decisions. In addition to Cochrane reviews, the Cochrane Library provides other sources of reliable information, from other systematic review abstracts, technology assessments, economic evaluations and individual clinical trials – all the current evidence in one single environment.<sup>3</sup> Free access to the Cochrane Library is available in Ireland.

### Blogs

A blog is a website where entries are written in chronological order and commonly displayed in reverse chronological order. 'Blog' can also be used as a verb, meaning to maintain or add content to a blog.

Many blogs provide commentary or news on a particular subject such as food, politics, or local news; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, web pages, and other media related to its topic. The ability for readers to leave comments in an interactive format is an important part of many blogs.<sup>4</sup> Some examples of blogs include NHS Blog Doctor [nhsblogdoc.blogspot.com](http://nhsblogdoc.blogspot.com) or [www.irishblogs.ie](http://www.irishblogs.ie)

### Wiki's

A Wiki is computer software that allows users to easily edit, create, and link web pages. Wikis are often used to create collaborative websites.<sup>5</sup> The most well known Wiki on the web is Wikipedia ([www.wikipedia.org](http://www.wikipedia.org)) an 'online ency-

clopedia' where the content is generated and maintained/updated by users of the site.

### RSS feeds

Really simple syndication (RSS) feeds are now provided by many sites to offer news feeds on related subject areas, eg. Department of Health and Children, The National Library for Health, *BMJ*, etc. Free online services such as bloglines ([www.bloglines.com](http://www.bloglines.com)) collect and organise these feeds onto one site.

Blogs, Wikis and RSS feeds are useful web tools for general information or personal perspectives. They should not be used as primary and authoritative search tools for clinical information. If you are using them as part of your search methodology you should review and authenticate the information provided. 

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#### References

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