Getting information from the internet – and organising it!

By John Telford

If you are interested in research into Parkinson's, what should be in your internet toolbox?

The answer depends, for a start, on how academic you want the information you find to be. If, say, there was something in the news about a new discovery and you wanted to learn more, what might you try first? If you heard it on BBC radio or television, you could quickly search the BBC web site.

I remember hearing something about ibuprofen and Parkinson's so I simply typed 'ibuprofen parkinson's' into the search box at http://bbc.co.uk/news. I got three results: One was 8 years old, another from last year mentioned ibuprofen and was sort of relevant because it was about inflammation and an association between genes that relate to the immune system and Parkinson's. But the first in the list was the one I was looking for: a recent report that people who have taken ibuprofen for a long period of time have a reduced risk of getting Parkinson's.

BBC news and the 'broadsheet' newspapers often do a good job at reporting the basic facts of a new development, but you may find they are all reporting basically the same material because it has come from the same press release or is an account of the main points from an article in a 'prestige' journal like the Lancet or Nature.

The BBC report mentioned that the article had appeared in the journal Neurology and the investigator was Alberto Ascherio. I used these terms to search PubMed. Wikipedia (another essential item for your toolbox) tells me that PubMed "*is a free database accessing primarily the MEDLINE database of references and abstracts on life sciences and biomedical topics.*"

So I went to http://www.ncbi.nlm.nih.gov/pubmed/ and typed "Ascherio Neurology" into the search box and found 32 citations. Fortunately the paper I was looking for was the third in the list. Clicking on this entry opened up the abstract. Unfortunately, clicking on the link to the full text of the article revealed that I would have to pay $20 to read it. Sometimes the abstract tells you a lot of what you want to know and sometimes, even better, the paper is in an 'Open Access' journal it and is freely available to read and download online. But most of the time it is not.

PubMed gives a list on the right of related papers and reviews. These can often be a rich source of further information and provide invaluable background about the topic you are interested in. PubMed also has a sophisticated Advanced Search facility to help you find what you are interested in and to help you to filter out the hundreds of less relevant papers. For those of you who already have some expertise in this, try using the MeSH (Medical Sub Headings) database for   searching.   See: http://www.ncbi.nlm.nih.gov/books/NBK3827/#pubmedhelp.Searching_by_using_t   There is a good video tutorial.

Once you start collecting references you find you are soon accumulating dozens of them. A tool I find invaluable for organising them is **Zotero**. This is an add-on for the Open Source internet browser **Firefox**. It does not work with Internet Explorer. Zotero is free and is produced by George Mason University, Virginia. If you go to http://www.zotero.org you'll find it says you can **collect, organize, cite, and share** your research sources. Collecting references into your library is as easy as clicking on an icon in the address bar when the paper or PubMed abstract is displayed in Firefox. This process captures the full citation information – Title, Author, Journal, Date, Abstract and so on – quite automatically. Organising means being able to arrange your references into folders by topic (with a particular reference appearing in as many folders as you like) and being able to label each reference with subject tags and add notes. You can search through your library of references and you can simply drag an item out into a document you are writing and it

automatically inserts a properly formatted citation into it. I am a great fan of the Open Source movement so I recommend you get set up with Firefox, download and install Zotero and also get the free Open Office because this integrates with Zotero too.

Two more tools to mention. These enable you to be alerted to new information as it arises. Google alerts enables you to receive notification by email of anything that appears on the web relating to a subject that you specify. If you go to http://www.google.com/alerts you can set this up quickly and easily.

The other facility is Biomed Experts. (http://www.http://www.biomedexperts.com/) You have to register for this (but it is free) and then you can add researchers from anywhere in the world to become your 'Network'. You can then receive regular notification by email when any of them publishes a new paper. This is very useful for keeping in touch with the progress being made by the laboratories working on the things you are particularly interested in. So you can guess that I have all the speakers from all the SPRING conferences and Forums included in my network!

Please write in to let us all know if there any internet tools that you find particularly useful.