

THINKING BEYOND YOUR COMFORT ZONE

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A Health Libraries Australia (HLA) professional development workshop was held on Wednesday 1 April 2015, presented by Julie Glanville, Associate Director of York Health Economics Consortium in the UK.

The focus of the day was advanced searching techniques, covering topics from search strategy development and new semantic tools, through to the effective use of search filters.

As the Clinical Librarian at Austin Health, a significant amount of my working day involves collaborating with researchers and clinicians on extensive literature searches and systematic reviews; therefore this workshop was of particular interest.

Use what has already been developed – choose your tool wisely

Although many tools were discussed at the workshop, my attention was caught by the tools that present information in a visual manner such as Knalij (a visual concept map of PubMed results) and VosViewer (a 'heat map' representation of Medline records), and also tools that offer useful additions to a librarian's strategies: GoPubMed (for journal frequency and bioinformatics tools) or Quertle (which uses 'PowerTerms' to find concepts).

Other tools that were introduced included:

- PubReMiner – useful to quickly indicate candidate terms
- MeSH on demand – fast and easy tool
- TERMINE – provides phrase analysis
- EndNote – using term lists for frequency analysis.

Since attending the workshop we have used Knalij with Austin researchers to provide a visual picture of their search topic, though we note that it does not represent the most recent PubMed results. We have also used GoPubMed and PubReMiner to quickly establish candidate terms for clients starting reviews. We can see many uses for these tools to assist in the early stages of systematic review planning or extensive literature search planning. These visual representation tools also have potential for use during information literacy sessions to increase people's awareness of how the health literature is broadly mapped, where gaps occur in the literature and identifying collaborators in a particular subject area.

Use what has already been developed – to structure the search

Establishing candidate search terms is increasingly difficult as health research extends into areas with ontologies that are still developing. A possible answer may lie in text-mining analysis, however Julie noted that such tools are still in their infancy and require further development to become user-friendly.

Often in health research the concepts do not fit neatly into the well-worn PICO (Population, Intervention, Comparison, Outcome) method. The workshop encouraged participants to think through ways to break down research concepts, outlining the benefits of multi-faceted approaches. This directly applies to my situation, for example, when I am working with clinicians investigating broad notions such as 'health related quality of life'.

Use what has already been developed – to avoid reinventing the wheel

The second part of the workshop centred on the use of search filters. To me, the key message was to avoid reinventing the wheel. For librarians involved in developing complex search strategies, it can be easy to forget that some of this ground has been well-trodden for us already in the form of well-tested search filters (also known as hedges). The workshop was useful in highlighting the importance of critically analysing the search filters we may seek to use so that we are clearly aware of the sensitivity and specificity claimed – akin to ensuring you get your ‘wheel’ from a reputable dealer!

Overall, the workshop highlighted the benefits of thinking beyond our ‘comfort zone’ when designing a search strategy, and remembering to use what others have already created to benefit the process. Using these tools with clients can lead to greater engagement and collaboration in developing search strategies, as well as the very practical benefit of locating key search terms and returning appropriate results.

Further reading

1. <http://knalij.com>
2. <http://www.vosviewer.com>
3. <http://www.gopumbed.org>
4. <http://www.quertle.info>
5. <http://hgserver2.amc.nl/cgi-bin/miner/miner2.cgi>
6. <http://www.nlm.nih.gov/mesh/MeSHonDemand.html>
7. <http://www.nactem.ac.uk/software/termine>
8. <http://www.endnote.com>