

Citation pearl searching

Sometimes when you have run your search, the results may not be exactly what you are looking for. Out of 50 results, for example, only one may be relevant. So what do you do next?



Option 1

Give up and end up none the wiser.



Option 2

Investigate further and find the pearl!

Option 2 is 'citation pearl searching' or 'citation pearl growing'.¹⁴ This method means taking the few results that you do have and using them to identify more relevant papers. There are a number of ways to do this.

Related items

Many databases and search engines now identify 'related items' or 'similar items' that could be what you are looking for, for example, 'Related citations in PubMed':

The screenshot shows the PubMed interface. The search results for the article 'Effectiveness of an herbal preparation containing echinacea, propolis, and vitamin C in preventing respiratory tract infections in children: a randomized, double-blind, placebo-controlled, multicenter study' are displayed. On the right side, under the 'Save Items' section, the 'Related citations in PubMed' link is circled in red. Below this link, several related citations are listed, including 'Review: Echinacea for preventing and treating the common cold' and 'Review: Echinacea for preventing and treating the common cold'.

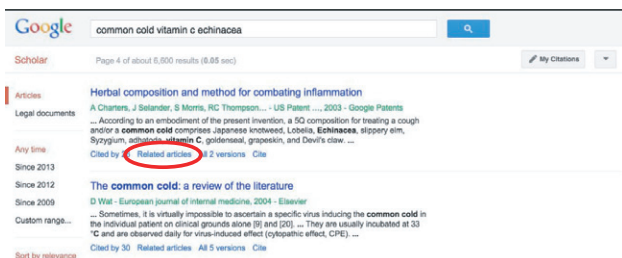
¹⁴Ramer, S.L. 2005. Site-ation pearl growing: methods and librarianship history and theory. *Journal of the Medical Library Association*, 93(3), 397-400.

Searching Skills Toolkit: Finding the Evidence, Second Edition. Caroline De Brún and Nicola Pearce-Smith.

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In the example, a relevant article looking at the use of vitamin C as a means of relieving the symptoms of the common cold was retrieved. Only 27 results were found, and the one displayed was the most relevant. On the right of the screen, however, 'Related citations' are identified, which did not appear in the original search, but which might be relevant. It would be a good idea to look at those records and see whether they are using terms that you have not included in your search strategy, and then adding such terms to your strategy.

Similarly, Google Scholar has 'Related articles', BMJ and JAMA have 'Related Content':



Author search

It is possible to search using an author's surname and initials to see what else they have written. Many journal websites already have links, such as 'Articles by [author name]' so that you can see whether they have written more papers on the same topic. On PubMed, this is very easy because the author names are hyperlinked, so just click on the author name and you are taken to other research by this author. This feature is available in many databases and electronic journals.

Another option is to contact the authors directly to see whether they have written (or indeed are writing) anything else on this topic or whether they know of any other researchers who have written on the same topic. Nowadays, many journals will publish author contact details to facilitate collaboration.

Keywords

After performing a search, if you only find one good and relevant reference, go into the full record and look at the keywords / thesaurus terms / MeSH terms / descriptors etc. to see whether they have been indexed using terms you have not included in your search. Sometimes, different languages and databases apply alternative terminology. For example, the Medline and CINAHL index's use the MeSH term 'Emergency Medical Technicians', while

Embase uses 'Paramedical Personnel' for paramedic. If you do not include all the relevant terms in your search, then you might miss out on key research.

In PubMed, if you change the Display settings to Medline, the list of MeSH or descriptors headings will be shown:

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MH - Aged
MH - Antiviral Agents/therapeutic use
MH - Ascorbic Acid/therapeutic use
MH - Common Cold/*therapy
MH - *Echinacea
MH - Female
MH - Humans
MH - Male
MH - Middle Aged
MH - Oxadiazoles/therapeutic use
MH - Phytotherapy
MH - Plant Extracts/therapeutic use
MH - Questionnaires
MH - Risk Assessment
MH - Severity of Illness Index
MH - Treatment Outcome
MH - Vitamins/therapeutic use
MH - Zinc Compounds/therapeutic use
EDAT- 2007/06/06 09:00
MHDT- 2007/08/01 09:00
  
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Journals

Many journals, including the *British Medical Journal*, *The Journal of the American Medical Association*, *New England Journal of Medicine*, and the *Lancet*, offer a range of methods for citation pearl searching, including 'Find similar articles in PubMed' on the *BMJ* site and 'Articles Related by Topic' on the *JAMA* site.

Snowballing

One final place to search for similar papers is in the list of references supplied by the author at the end of the relevant article. Often this is a good place to look when searching for similar titles or authors who are looking at the same topics. Particularly with online papers, the individual references may even hyperlink straight to the original papers. By looking at the references that they have used, you can also identify additional terminology that can be added to the search strategy.¹⁵

¹⁵Greenhalgh, T., Peacock, R. 2005 Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ*. 331(7524), 1064.

Alerts

Journals often provide alerting services, such as when it is cited, when responses are posted and when a correction is posted, so that you can keep up to date with any developments related to the original article. This is a useful way to stay current with any changes in your field of research.

RSS feeds



RSS feeds are a way of receiving information and keeping up to date. Many websites are providing RSS feeds and you can recognise them with symbols similar to this one  or with RSS or XML in white with an orange background. To read the feeds you need to set up a page on a news reader or an aggregator, such as NetVibes or Hootsuite. Internet browsers often let you collect RSS feeds like favourites, and Microsoft Outlook lets you store RSS feeds alongside your emails, in a separate folder. These resources will collect all of your RSS feeds. Every time your favourite websites are updated, they will automatically send details to your news reader. This means that instead of visiting lots of websites to see whether there is any new content, you can just go to one and see all the updates in one place. RSS feeds are particularly useful for journal content pages and search results so that each time new research is added to the database that meets with your search criteria, you will automatically be alerted to this. A useful tutorial on RSS is available from Common Craft www.commoncraft.com/rss_plain_english



It is worth making a note of the methods that you use, in case you need to write up your literature review, and also to ensure that you don't get lost!