Around meta-analysis (7): some use for clouds

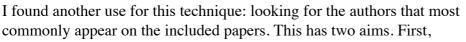
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I have been tempted to try out some text-mining tools which might be helpful when conducting meta-analyses. In an ideal word, it would be possible to full texts of all ever-published papers to find information and the only problem would be how to deal with such huge amount of data. In practice, access is still an issue, although we are going in that direction [link]. Anyway, I looked for much less ambitious and technically easier uses for text mining tools.

Analysing frequencies of words is a rather simple task and can be

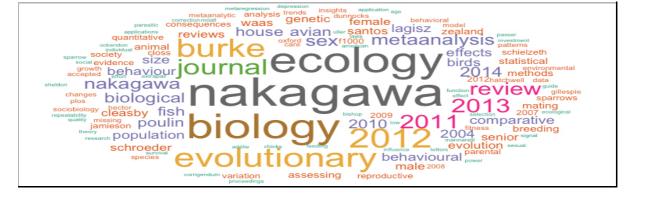
helpful by identifying the terms that appear most often in a given text or sets of documents (after filtering out "stopwords", e.g.: and, or, the, be...). These terms can be then used to search in databases for other similar documents. Processing reasonable amounts of text can be easily done in R, using text-mining package "tm". For more advanced searches of informative search terms a <u>TerMine</u> software can be used. The advantage of this software is that it annotates the input text with candidate multiword terms, rather than just single most frequent words.

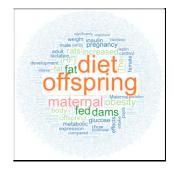
I personally do not like looking at long tables of results, so I found it nice to be able to visualise the results from word search as a wordcloud in R. The first wordcloud is an example of a wordcloud created from titles and abstracts of papers preliminary included for our upcoming meta-analysis on the effects of maternal obesogenic diets during gestation on offspring appetite.



these people might have published some more papers that slipped my search (so, checking their publication lists or contacting directly may bring some more data into analysis). Second, they might be useful as potential reviewers of our papers. Thes second wordcloud is thus for the authors of the papers used in my previous example.

Finally, just for fun, I have created a wordcloud from our own website - by grabbing a list of published papers from our "Publications" page. With this one, I had to scale down "Nakagawa" a little to make room for other words...







Details

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