Online reference managers: not quite there yet

Martin Fenner, Gobbledygook

June 23, 2008

For my Paper Writing Dream Machine I obviously need a reference manager. My list of required features includes:

- Easy addition of references by integration with Pubmed, Google Scholar and other online databases. A special bookmarklet would be a bonus.
- Commenting on references, e.g. custom tags or free-form text
- Creation of reference lists, e.g. by tags
- Sharing of reference lists to user-defined groups or to everybody
- Integration of the references into your word processor of choice. An export function into a common format such as .ris is a minimum. A better solution would be an open programming interface (API).

For obvious reasons (sharing references with your coauthors) an online reference manager is the easiest way to accomplish these feature requests.

Connotea

You import references into Connotea via bookmarklet or by entering the DOI. A direct query of Pubmed is not possible. References can be tagged and commented on. Unfortunately it is not possible to create a reference list for a particular paper that is only seen by your coauthors (Connotea groups are all or nothing). References can be exported into common formats, but no direct word processor integration. A Connotea Web API is available.

CiteULike

CiteULike is very similar in features to Connotea. The same limitations (no private group for reference list, no word processor integration) also apply.

2collab

A newer service created by Elsevier. Again similar in features to CiteULike and Connotea. Private groups for your coauthors to share a reference list are supported. No direct word processor integration. 2collab has a public API.

RefWorks

In contrast to Connotea and CiteULike this is a commercial product (our university has a subscription). Again no direct integration with Pubmed (only copy and paste), but a bookmarklet. And again difficulties to create a list of references that is visible just to your coauthors. Write-n-Cite is a RefWorks plugin for Microsoft Word. No API.

EndNote Web

EndNote Web is promoted as a sort of Endnote Lite, i.e. a web-based tool with just the basic features of the commercial desktop application. Again no direct Pubmed Search, but integration with Web of Science (just like Endnote a product from Thomson Scientific). Sharing of reference lists to just your coauthors is possible. Endnote Web comes with a Microsoft Word plugin for ease paper writing.

With the exception of Connotea and 2 collab, all the systems mentioned above allow you to store the full-text PDF. This is a handy feature, but online storing of creates copyright issues for papers that are not public access.

Zotero, a Firefox extension, is not on this list, because references are stored locally and cannot easily be shared with others.

Surprisingly, none of the tools supports all my requirements. Endnote Web comes closest, but is far from perfect (e.g. sometimes slow, also needs Web of Science). Is it so difficult to build a Pubmed query function and group reference list into the tools?