

Citations are links, so where is the problem?

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Citations are a fundamental concept of scholarly works. Unfortunately they are also difficult to do. Traditional writing tools such as Microsoft Word can't really handle them in a way that is appropriate for a scientific manuscript, and that is why we have reference managers such as Endnote, Zotero or Mendeley. And the lack of this functionality is a major reason that Google Docs and other online collaborative writing tools haven't become popular for writing scholarly works.

1958 Edsel Citation by Roadsidepictures, on Flickr.

Using citations is hard for paper authors. The process is still complicated when using a reference manager, and it remains one of the more time consuming aspects of writing a manuscript. The main reason is that something always seems to go wrong with the formatting of the bibliography, but there are also issues of wrong or duplicate citations (including citation mutations), correct citation styles, etc. I can't comment on how well BibTeX integrates citation management into LaTeX, but the main issue seems to be that citations usually are not one of the core functions of the writing tool.

WordPress and reference managers

The blogging platform **WordPress** could become an excellent authoring platform for scientific papers. But to become successful, WordPress has to handle scholarly citations, and not just with copy and paste. Carl Boettinger has written about doing citations in WordPress earlier this week and there is also an ongoing FriendFeed discussion. I have also looked at the available plugins, in particular papercite (based on bib2html) which uses the BibTeX format and is giving me some problems. I can't get the CrossRef Citation plugin to work (SyntaxError: Parse error) and the Mendeley Plugin is displaying bibliographies, rather than inserting citations. There is currently probably no easy solution to cite scholarly works in WordPress and I don't think that creating a WordPress Plugin for one of the reference managers is the right approach.

Citations are links

If we think about it, citations are nothing more than specialized links that contain additional information and formatting. And the references section is a

list of footnotes. Links are a genuine part of WordPress, and this system should therefore also be used when writing scholarly works with WordPress. A Citation Plugin should extend this system, and solve these issues:

- WordPress isn't very smart about footnotes. I use the WP-Footnotes Plugin, but we need additional functionality: avoid duplicates, formatting options of in-text citations (e.g. range of citations or author-year) and sorting of footnotes by occurrence or name.
- The tool to create links in articles is not really integrated with the WordPress Links system (in contrast to images, where you have access to the media gallery when inserting an image).

Both of these issues can be solved, especially since they are not specific to scholarly works and could be tackled by thousands of WordPress developers out there.

We don't want to use WordPress as a reference manager, as there are already many tools out there that can do this job much better. We rather want reference manager integration with WordPress, and the easiest way to do this would be an automatic synchronization with the WordPress Links database. We can already do this with the social bookmarking tool **delicious** (I use DeliciousLinkSync), so it shouldn't be difficult to do this with the social bookmarking tools for scientists such as **CiteULike** (you can sync CiteULike with delicious, a workaround I currently use), **Connotea** or **BibSonomy**.

Links are powerful

Using the WordPress Links system makes it very easy to extend the core functionality, and many interesting tools are already out there. A good example is the Broken Link Checker. The Plugin can regularly check the links in your blog posts, but could also be used to check DOIs for references in a semi-automated way. The Broken Link Checker found 30 broken links in the Blogging Beyond the PDF sample article (all my fault), and automatically changed the display style for them.

And there is so much more that can be done with links. I am particularly interested in adding meaning to links using the Citation Typing Ontology (CiTO). And I want to be able to cite specific parts of an article. Dave Winer has introduced paragraph-level permalinks to blogs, and I can do this on WordPress using the WinerLinks Plugin. The broken links in my Blogging Beyond the PDF sample article are all internal links, and I can now use WinerLinks to fix them. An example where I have already done this is the reference to Table S8 in this paragraph.

Update on 12/11/10: I've installed the Anotar Plugin by Peter Sefton that adds paragraph-level commenting.