

Blogging Beyond the PDF

Martin Fenner, Gobbledygook

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Four weeks ago I wrote about the Beyond the PDF workshop that is planned for January in San Diego. The goal of the workshop is to identify a set of requirements, and a group of willing participants to develop open source code to accelerate scientific knowledge sharing. The Google Group for the workshop has already seen a lot of interesting discussions. I have since had more time to think about my contribution and decided to propose the following:

Evaluate the blogging software **WordPress** as a platform to author, review and publish scientific manuscripts. Extend the **WordPress** functionality for authors and citations.

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Wordpress is a very interesting candidate for this because of the following features:

1. WordPress is Open Source and can be easily modified and extended by Themes, Plugins, etc.
2. WordPress is used by millions of users, a market much larger than the scientific software market. Many requirements for a scientific writing platform are not specific for scientific software.
3. WordPress treats article writing as a workflow that includes collaborative writing, version control, and a document status.

Of course I'm not the first to think about WordPress in this context, the Code4Lib journal and Knowledge Blog are just two examples. To get started, I installed WordPress and a number of interesting Plugins at a new Blogging Beyond the PDF website. Phil Bourne has kindly provided material from a recent PLoS Computational Biology paper for the workshop. I formatted a first version of this paper using WordPress and the result can be seen here. There are a lot of rough edges (several tables and most references are still missing), but to me this looks good enough considering this is the result of maybe 10 hours of the work. In the next six weeks I will continue to work on this example manuscript to get a better idea of the strengths and weaknesses of the WordPress platform. I also hope to learn more from the experience of others. My first impressions are below.

Authors

The Co-Authors Plus Plugin enables multiple authors per article. Each author can be linked to an author page for displaying biographical info. WordPress could be extended to include additional info such as institution or past publications. Linking the WordPress user account to the unique author identifier ORCID, and describing the role of the author in the paper (e.g. conceived and designed the experiments or analyzed the data) would be particularly interesting. Plugins such as Edit Flow can extend the workflow by adding custom status messages (e.g. resubmission), reviewer comments, and email notifications.

Figures

Wordpress has good functionality to add figures to articles, including the option to add a caption or resize the figure. In addition, there is a good number of Plugins that help with the resizing, other manipulations and display of images.

Tables

Wordpress doesn't do tables, but several Plugins add that functionality, including WP-Table Reloaded. This Plugin adds some very interesting functions, including the option to export table data as CSV or XLS files. This makes it much easier to reuse these data, something that I find very useful.

Citations

The WP-Footnotes Plugin is one of several plugins that adds footnotes to articles. Several Plugins integrate with reference managers such as CiteULike, but the functionality is still very limited compared to how most reference managers are integrated with Microsoft Word or LaTeX.