

# Liquid Journals: Scientific Journals in the Web 2.0 Era

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## ABSTRACT

The Web has changed the way we create, consume, share and disseminate scientific knowledge. Publishing is now almost real time and free and papers are not longer the only form of scientific dissemination. We can now publish early ideas in blogs at ScienceBlogs.com, put pre-prints in online repositories, such as arXiv.org, experiments on MyExperiment.org and datasets on our homepages. A brand new world of possibilities is open for scientific knowledge creation, dissemination and evaluation, causing the evolution of the notions of *scientific contribution* and *scientific journal* to serve the need of scientists to learn about novel, interesting research ideas and results. This new context poses also new challenges. Attention is now the obstacle to dissemination as opposed to the pre-web era in which publication and distribution were the limiting resources.

However, the majority of existing journal models and tools remains unaware of the new opportunities and challenges posed by the Web. They are still constrained to the traditional notion of paper and do not propose any effective mechanism to face the problem of attention.

In this demo we introduce a platform and a model of journal in the age of the Web called *liquid journal* [1]. The goal of the model is to disseminate knowledge in the best possible way while also supporting scientists in the credit attribution. In a nutshell, liquid journals are collections of “interesting” links to *scientific contributions*, such as papers, blogs, datasets, that are related to certain topics. The content gets to the journal either by querying both conventional and non conventional sources on the Web or manually by the group of editors. Liquid journals combines *depth* and *breadth* in bringing a wider spectrum of scientific contributions from different communities, while also focusing editors’ and readers’ attention on the things they care about.

Liquid journals represent a family of publication models that range from the traditional to the more web-aware ones. Each model contains the following phases (Figure 1): (i) in the definition phase, editors define the rules for the content gathering by defining a *query over the Web*. The query specifies the type and properties of the content to include, the ranking and grouping criteria. Editors can also define the process to follow: to allow submission, perform peer-review, or simply filter out results from the query. (ii) in the content selection phase the editors review the results of the

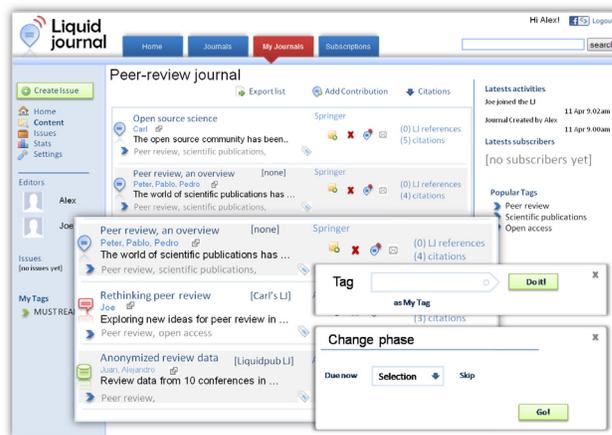


Figure 1: Collage of the various features of LJ

query and manually added contributions, deciding what to include in the journal. (iii) in the publication phase, editors group content in issues or update the existing journal. (iv) in the consumption phase, the journal is read and tagged by its followers. The consumption influences the reputation of the articles, journals, and authors.

Once up and running, the query results will provide the input to the selection process, in which editors decide what to include in the journal. Thus, liquid journals are always evolving, as new scientific contributions matching the query definition appear and are selected by the editors. This is indeed the reason why we call it liquid journal as opposed to the “solid” and fixed traditional journals.

The platform described here is available online<sup>1</sup> along with demonstration videos and additional material.

**Categories and Subject Descriptors:** H.4 [Information Systems Applications]:Miscellaneous; H.3.3[Information Systems]:Information Search and Retrieval -Query formulation, Relevance feedback

**General Terms:** Design, Languages, Experimentation

**Keywords:** Academic Journals, Web, Enhanced Search

## 1. REFERENCES

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<sup>1</sup><http://project.liquidpub.org/research-areas/liquid-journal>