Citation and bibliography made easy with Zotero

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Rencontres Mondiales
du Logiciel Libre

Abstract

Zotero is a reference manager that makes it easy and quick to collect, manage and share papers as well as cite while writing. Zotero is dedicated to people who teach, publish or write. Among others, these are students, teachers and researchers.

Do you feel alone or helpless when you think of keeping an eye on what you read or need to read ? Have you ever tried to store references using a spreadsheet and realised it was not a good idea ? Do you have to struggle with publisher templates because you publish in various journals ? Zotero is for you, then.

Zotero is a reference manager. First developped as a Firefox addon, it's now also available as a standalone software, not to mention its compatibility with Chrome and Safari. It works on Windows, Mac OS X, GNU/Linux and any operating system that runs Firefox. Zotero is free and open source. It's released under GNU Affero General Public License[1].
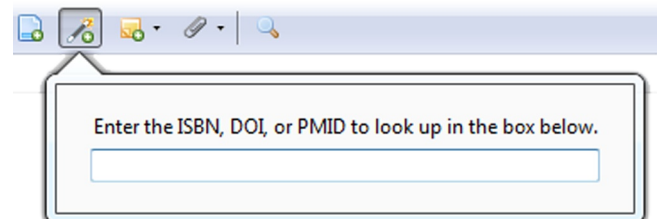
Free beer, speech or kitten ?

You don't have to pay to use Zotero (free beer). You have the right to understand how it works by looking into the source code and modifying it if necessary (free speech) and you can spend a lot of time translating, hacking and improving it or creating citation styles (free kitten). You have the right to choose the freedom that fits your needs and beliefs.
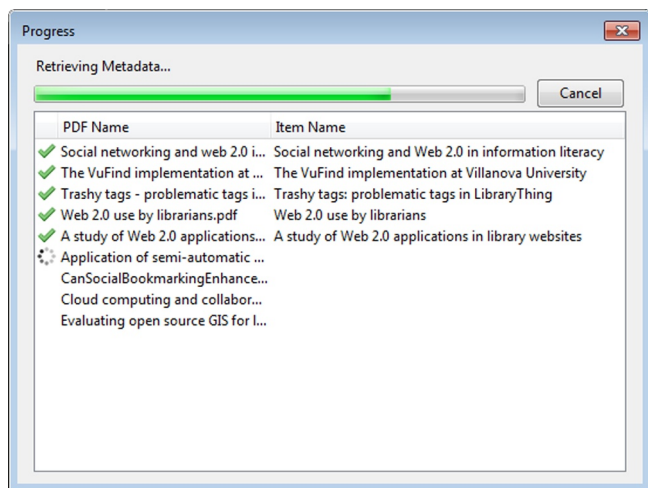
Feed it and Zotero will be your friend

There are three ways to feed Zotero using three great features.

Zotero scans webpages while you are surfing and is able to recognize references. It means you can collect them at the exact time and place where you find them : on a webpage. It can be in a book in a library catalog or on Amazon, a paper in a scientific database or Google Scholar, an article on Wikipedia, a video on Youtube, a picture on Flickr and many more. One click is enough. You can even add several items at the same time.

Fig. 1 The Magic Wand allows you to add a reference to your Zotero library by using the ID of the document.
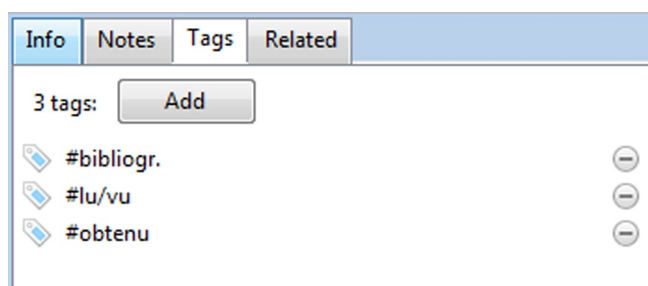
Fig. 2 Zotero can retrieve metadata from PDF files and create the related references.

The second way uses a great feature called Magic Wand. If you have already found documents, you can add them by just typing an ID, like the ISBN for books, DOI for articles, proceedings and other online resources or PMID for articles indexed on PubMed (Fig .1).

The third way is for PDF files stored on your hard drive. In this case, just drag and drop them in Zotero. Zotero will retrieve the metadata of all the documents indexed on Google Scholar and add them to the documents (Fig. 2).

Zotero is willing to help
When you add a reference to your Zotero library, you can add it to one or several collections as well as add notes and tags. All these elements are then searchable.
You can even create a simple and flexible

Fig. 3 Example of tags used for a workflow: #obtenu (obtained), #lu/vu (read) and #bibliogr. (valuable enough to be added in the bibliography)
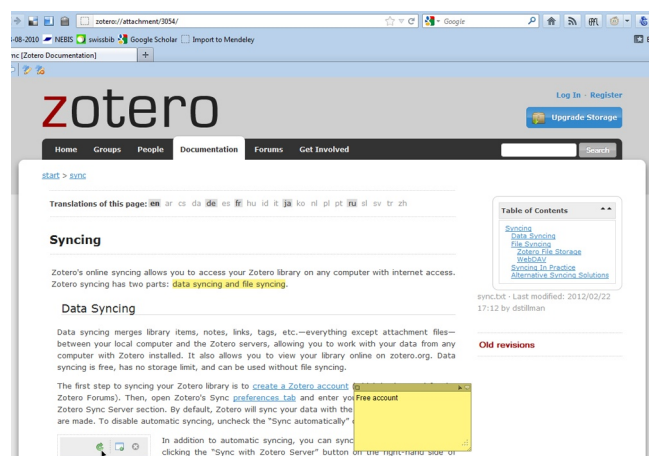
workflow by adding tags (Fig. 3). You don't have to remember what paper you still have to get or what document you still have to read anymore. You just need to remember to add a tag when you finish reading a paper (e.g. #lu/vu[2])... You can sort the references the way you prefer : by author name, publication date, date added and many more.
With smart collections (created from saved searches), you can gather all the « to read » papers in one place.

Zotero can even go further. You don't remember where you have found this article ? Ask Zotero. You don't remember in which collection you filed this reference ? Ask Zotero[3]. You don't know how to cite for a specific journal ? Ask Zotero.

Zotero can also capture a whole webpage (not only the visible part of it !) that you can then annotate (Fig. 4).

When fed, Zotero follows you everywhere
Zotero is where you are, regardless of the computer you are using. If the computer is not yours, you can access your library online (Fig. 5). If you work on several computers, Zotero sync data automatically from one device to another[4].

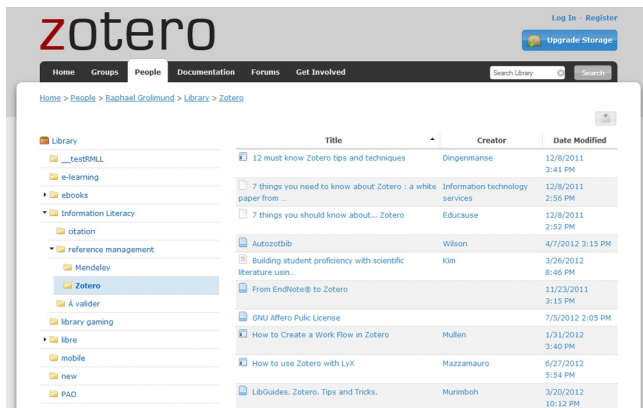**Fig. 4** Webpage captured and annotated with Zotero.

Fig. 5 A personal library as seen online (on Zotero website).

And even if you use Zotero for Firefox, you can access your library offline (once synced).

A simple drag and drop of the references from Zotero in your Wordprocessor creates a bibliography. If you want to publish it on a webpage, save the references as HTML. This makes your webpage Zotero-compliant. People visiting it will be able to save the references in their own Zotero library.

Zotero helps you cite

When you start writing a paper, you need to use the publisher's template. But this template is different from one publisher to another. Here again, Zotero takes the layout part in charge (Fig. 6) while you choose when and what you cite. So, if your paper is rejected by a journal and you want to submit it to another publication, you can turn the in-text citations and bibliography's layout from one template to another in only three clicks.

And if the right citation style is not installed yet, just take a look at the style repository[5]. There are more than 2,300 styles at the moment. And it's growing fast... But if you don't find the publication style, compare the one you are looking for with the existing styles by using the Search by example tool developped by Columbia University Libraries and Mendeley[6].

Zotero introduced the Citation Style Language (CSL) to manage the citation styles layout. This open format has been adopted by other softwares including Mendeley. The Search by example tool perfectly illustrates the benefits of multiple software using the same open formats. Even if not involved in this project, the Zotero community gets full benefits of it.

If you are a former Endnote[7] user, you can also import an Endnote style (Puckett 2011, p. 79).

Zotero is compatible with LibreOffice, OpenOffice.org and Microsoft Word. Thanks to AutoZotBib, addon for Zotero developped by Robin Wilson[8], it is also easily usable with LaTeX.

Another third party tool by Petr Simon embeds cite-while-you-write in LyX[9], a graphical interface to produce LaTeX documents.

Zotero loves to share

In addition to a personal library, you can create group libraries to share references and documents with colleagues and friends. You can publish your personal Zotero library so that everyone can view it, but it's an all or nothing choice. Group libraries enable you to share only a part of your references. You are not the only person authorized to add, all group admin can.
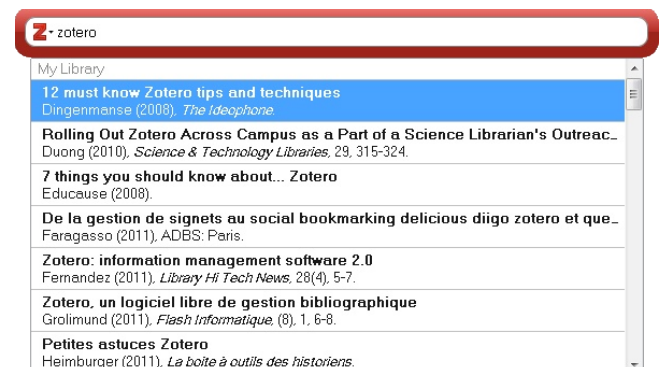

Fig. 6 Integrated citation tool in LibreOffice.

What Zotero can't do for you

Even if Zotero helps you, there are a few things it can't do for you. When you add an item in you library, you have to check if the reference is complete and correct. The informations are imported as found, but there can be mistakes on the webpage.

Zotero can't read the papers for you and can't select the good ones and drop the non-relevant.

Finally, Zotero can't write a publication, but it may help you.

An ever improving software

In the near future, Zotero developers will add compatibility with Internet Explorer and mobile devices. Zotero will then be compatilbe with four out of five major browsers.

A recommandation service is also under development. This would help users not to miss a paper on their topic.

NOTES

[1] License available in English at
`http://www.gnu.org/licenses/agpl.html`
and in French at
`http://www.gnu.org/licenses/agpl-3.0.fr.html` (accessed July 5th 2012)

[2] Based on an idea of Lincoln Mullen (`http://lincolnmullen.com`, blogpost not available anymore), starting tags with an hashtag lets you know which ones are describing the document and which ones are part of the workflow.

[3] In fact, press Control key on Windows, Option key on Mac OS X and Alt key on GNU/Linux.

[4] To be able to sync your Zotero library accross multiples computers, you need to create a account on Zotero website. It's free and takes two minutes.

[5] `http://www.zotero.org/styles` (accessed July 8th 2012)

[6] Available online at `http://steveridout.com/csl/searchByExample/` (accessed July 8th 2012)

[7] Thomson Reuters website claims to provide more than 5,000 styles: `http://endnote.com/support/enstyles.asp` (accessed July 8th 2012)

[8] This tool automatically updates the .bib file you use to cite in your LaTeX documents. You can install this addon from `http://rtwilson.com/academic/autozotbib` (accessed July 8th 2012).

[9] `http://www.lyx.org` (accessed July 8th 2012)

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USEFUL LINKS

Zotero website
http://www.zotero.org

Zotero documentation
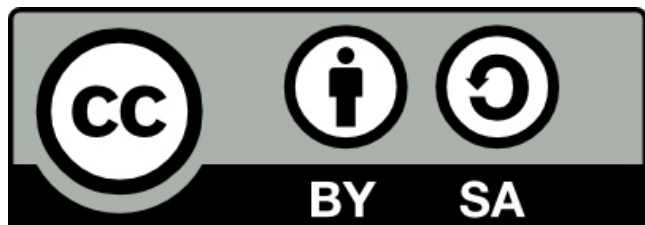http://www.zotero.org/support/

Third party documentation
http://www.zotero.org/support/third_party_documentation

Plugins for Zotero
http://www.zotero.org/support/plugins

EPFL Library's bibliography about Zotero
http://go.epfl.ch/zotero

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ADDITIONAL INFORMATIONS

This document was written with Scribus (http://www.scribus.net). The related presentation was created on Prezi (http://go.epfl.ch/rmll2012-zotero).

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