Collecting, organizing and citing scientific literature: an intro to Zotero

Mark Dingemanse
Collecting, organizing and citing scientific literature: an intro to Zotero

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Mark Dingemanse
Core tasks for any scientist

collecting literature
building a library
citing sources
A common pre-Zotero workflow...
Google Scholar

Stand on the shoulders of giants


Typical problems

Heaps of PDFs with inscrutable file names
No links between metadata, files, notes
When citing, copy+paste best option
Hard to share papers with metadata
Pointless reformatting of references
Collaboration difficult to organise
...

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citing sources
Install Zotero from zotero.org/download

Zotero 5.0 for Windows
Your personal research assistant
Download

Other platforms
macOS · Linux 32-bit · Linux 64-bit
Looking for Zotero 4.0?

Zotero Connector
Save to Zotero from your browser
Install Chrome Connector
Zotero Connectors automatically sense content as you browse the web and allow you to save it to Zotero with a single click.
Zotero Connectors for other browsers
Collecting literature
Whatever the scenario
locating a specific paper
open-ended literature search
your search probably starts online
with services like Google Scholar, PubMed, ScienceDirect, Web of Science, etc.
n400 individual differences

Articles (☑ include patents)  Case law

Stand on the shoulders of giants
Suppose this is the one your were looking for; click it.
On the Brain Response to Syntactic Anomalies: Manipulations of Word Position and Word Class Reveal Individual Differences

Lee Osterhout

http://dx.doi.org/10.1006/brln.1997.1793

Abstract

In two experiments, event-related brain potentials (ERPs) were recorded from 12 scalp
One click does it — including the PDF if you have access
Rules of thumb

Be picky about metadata quality
Use Google Scholar to quickly find stuff
but try to go to an article’s own page to save it
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Use Google Scholar to quickly find stuff
but try to go to an article’s own page to save it

Why? Google Scholar is often incomplete (e.g. no abstract, no DOI, etc.) — invest up front in high quality metadata and never look back
Rules of thumb

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but try to go to an article’s own page to save it

Use DOIs when you can
they point to the article’s official location
Zotero can easily import them
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** DOI (digital object identifier) is like a unique address for every scientific document. A DOI also makes a link: just type “doi.org/” before it**
Importing PDFs

While you’ll usually add new papers from within the browser, Zotero is pretty good at dealing w/ PDFs

- drag into your library to automatically retrieve metadata (success rate depends on age & type)
- Zotero will store a copy, rename it, index it for search, and sync it (if file syncing is enabled)
- if auto-import fails, Zotero will let you add metadata using DOI, via a good repository, or manually
Native-language N400 and P600 predict dissociable language-learning abilities in adults
Original research article
Neuropsychologia, Volume 98, April 2017, Pages 177-191
Zhenghan Qi, Sara D. Beach, Amy S. Finn, Jennifer Minas, ... John D.E. Gabrieli
Download PDF (1,359 KB) Abstract Cite

The N400 in processing repeated name and pronoun anaphors in sentences and discourse
Original research article
Brain and Language, Volume 173, October 2017, Pages 52-66
Amit Almor, Veena A. Nair, Timothy W. Boiteau, Jennifer M.C. Vendemia
Download PDF (2,133 KB) Abstract Cite
Zotero senses when you’re looking at a single vs multiple papers.
It can also save multiple papers at once (think systematic review).
In addition to direct import from hundreds of journals & repos, Zotero supports:

- Save from almost any library catalog
- Import via DOI, ISBN or PMID
- Import from RIS, BibTex, etc.

(If all else fails:) manual entry
Other methods

In addition to direct import from hundreds of journals & repos, Zotero supports:

- Save from almost any library catalog
- Import via DOI, ISBN or PMID
- Import from RIS, BibTex, etc.
- (If all else fails:) manual entry

The whole point of Zotero is that it automates grunt work to let you focus on real work.
II

Building a library
A good library

offers multiple ways of browsing/searching
has complete and definitive metadata
makes studying & note-taking easy
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<th>Creator</th>
<th>Year</th>
<th>Date</th>
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<td>Abelin</td>
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Zotero basics

Collections and tags
Searching
Notes
Collections
most like your old-school paper filing system
papers can be in multiple collections
most useful for coherent projects

Tags
flexible cross-categorisation by keyword
most useful for tagging topics or methods
or for workflow management (*need to read &c)
As your library grows, you’ll find yourself preferring search over collections & tags.

Z can search metadata but also fulltext PDFs.
Basic search is fast, advanced search flexible.

Searches can be saved for dynamic updates.

Saved searches are useful.

‘all items added in last month’
‘all books w/ PDFs’
Notes can be your external memory
What are the key points of this paper?
Do I ever want to read this again?
What was that clever phrasing?

**Protip**: if you read/annotate on other devices, the ZotFile plugin can import your PDF annotations & highlights
Example: using Tags+Notes to record memorable quotes
Example: using Tags+Notes to record memorable quotes
If ideophonic neologisms could be documented and if we had better evidence than the statements of informants we would have a striking phenomenon in language.

(William Samarin 1970)

1. Introduction

In one of the earliest typological studies of the vivid sensory words we call ideophones today, Diedrich Westermann wrote, “Even if I can only support it with a few cases that I have experienced myself, I am sure that these vocal images
III

Citing sources
Although association preferences documented in our study theoretically could be a consequence of either mating or shoaling preferences in the different female groups investigated (should we cite the crappy Gabor paper here?), shoaling preferences are unlikely drivers of the documented patterns both because of evidence from previous research and inconsistencies with a priori predictions. Our methods closely followed those of published mate choice experiments in this system (Tobler et al. 2009a,b; Plath et al. 2013),
Citing sources is a double-edged sword

*attribution* — giving credit where credit is due

*selection* — separating wheat from chaff
Citing sources is a double-edged sword

*attribution* — giving credit where credit is due
*selection* — separating wheat from chaff

Citing sources is not:

wasting your time changing initials to full names, commas to colons, or other pointless things

*That’s what Zotero is for.*
Installing Zotero will add new Z toolbar to your word processor
Clicking ‘Add/Edit’ brings up a fast and user-friendly search bar.
Features

In-text citations

counting authors, switching to et al. when needed
adding a,b for papers by same author, same year
using numbered or alphabetic styles ...and much more

Bibliography

ensuring everything cited is in bibliography
following even the most arcane formatting rules
fixing indentation, capitalization ...and much more
switching between styles is trivially easy
8000+ styles at zotero.org/styles
styles can be edited if needed
Add styles via zotero.org/styles

10 styles found:

- Functional Linguistics  (2015-04-21 12:08:45)
- Journal of Historical Linguistics  (2017-03-15 04:03:20)
Add styles via zotero.org/styles
IV
Advanced topics
Advanced topics

Synchronizing & backing up
Where your files go
Importing PDFs
Group libraries
Plugins
Local storage

Zotero stores
metadata & notes in a local database
PDFs & other attachments in /storage/
citation styles in /styles/

Zotero Storage directory
by default in your user profile
easy to move elsewhere
(do so for ‘roaming profiles’ on Windows)
Local storage

Zotero stores
metadata & notes in a local database
PDFs & other attachments in /storage/
citation styles in /styles/

Zotero Storage directory
by default in your user profile
easy to move elsewhere
(do so for ‘roaming profiles’ on Windows)

a large Zotero library in a roaming profile may slow down user login
Zotero can synchronise across devices
metadata & notes: unlimited
attachments: up to 300Mb for free
use Z on laptop, web, mobile devices

Setting up syncing
1. create Zotero account
2. enter info in Z preferences
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Setting up syncing
1. create Zotero account
2. enter info in Z preferences

Protip: to sync is to back up — even if you work on one device
Sync: Remote storage

1. Zotero File Storage
   Starting from $20/y for 2Gb, 6Gb, unlimited storage tiers (your institution may reimburse)

2. WebDAV
   Freemium (e.g. box.net) or institutional servers can offer anything between 2Gb and unlimited space

3. Dropbox/Google Drive [workaround]
   Not recommended, as database may become corrupted; see the Zotero forums for workarounds
Plugins

**Zotfile**: PDF management for Zotero
  - automatically rename, move, link PDFs
  - share files with your mobile devices

**Zutilo**: advanced editing & shortcuts
  - copy, paste, remove sets of tags
  - copy and paste in multiple citation formats

**Zotero Better BibTex**
  - generate stable citekeys for use in LaTeX/Markdown
  - push/pull export in background to keep libraries in sync

& many more: zotero.org/support/plugins
Frequently Asked Questions

Can I use Zotero with BibTex/Latex?
Sure — use the Zotero BetterBibTex plugin

Can I import my messy pile of PDFs?
Sure — drag them into the library to let Zotero retrieve the metadata for you

Can I import from another reference manager?
Sure — for help, check the Zotero forums

Can I export to other reference managers?
Sure — Zotero doesn’t try to lock you in and makes it easy to switch or use multiple systems (e.g. BibTex + Z)
collecting literature
building a library
citing sources
In short

Zotero takes care of everything that makes you weep and curse when doing it manually.

It puts hair-splitting editors out of business and lets scientists focus on real work.
Openness matters

Zotero is cross-platform, free and open source — made by scholars for scholars

✓ Users can contribute ideas and code, forming a rich and healthy plug-in ecosystem
✓ Development is agile and usage-driven, rather than rigid and profit-driven
✓ There is no profit motive, hence no incentive for user lock-in & monetization
Questions?

Plenty of docs & tutorials on zotero.org
Zotero Forums offer helpful advice
Your librarians can often help
(If all else fails:) drop me an email