



Literature Study without the Existential Dread



Tracking Sources: An alternative reference manager

Here at TU/e, most students and staff use **Mendeley** as their reference manager. Its use is taught in courses and the university has a license that provides 100 GB of storage for each person.

While Mendeley is certainly a highly capable tool for keeping track of the literature you've read, we'd like to present an alternative that may suit your specific use case better. Furthermore, when set up correctly, it can work very well in conjunction with the other tool we're going to introduce in this workshop (i.e. the note-taking tool **Obsidian**).

In this workshop, we're going to focus on [Zotero](#). If you have a look at Zotero's unassuming interface on [its website](#), you may wonder: "Why would I switch to this program? It looks very similar to Mendeley."

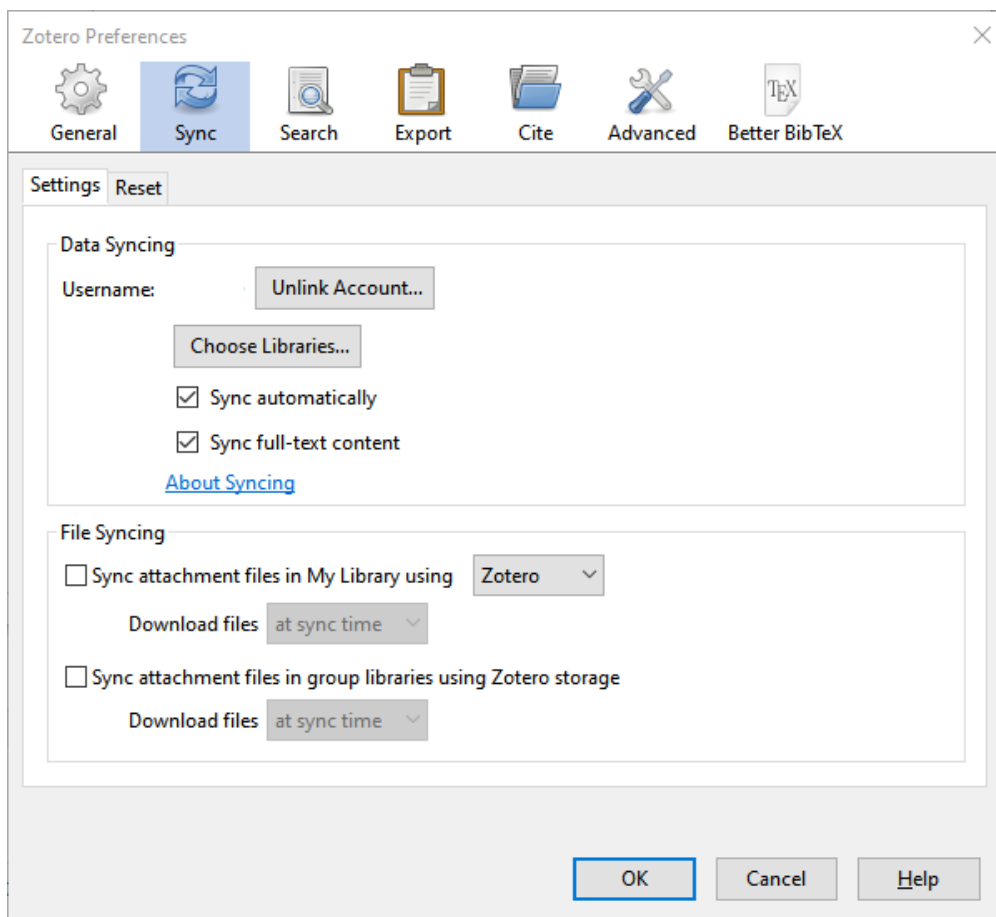
Unlike Mendeley, a proprietary tool owned by the academic publishing company *Elsevier*, Zotero is an open-source program. That openness ensures that a) it's completely free to use and b) it's highly extensible through the installation of plugins. In other words, while the basic program allows for roughly the same functionality as Mendeley, we can add further abilities to the program. We're going to make heavy use of that in this workshop.

Finally, it's important to acknowledge that Zotero and Mendeley are not the only options when it comes to reference management. EndNote, JabRef, RefWorks and PaperPile are just a few of these. However, we constrain ourselves here deliberately to the former two options, because of the fact most staff and students use Overleaf for writing in LaTeX and [Overleaf can sync to your Mendeley or Zotero account](#), meaning that you don't have to manually upload a new BibTeX-file if you add any new reference. This is - in our books, at least - a vital feature that no other reference managers have, making Mendeley and Zotero instantly more interesting for our purposes than any of the mentioned alternatives.



Task 1: Installing Zotero on your device

1. Go to [Zotero.org](#) and click the big red "Download" button
2. Choose the version corresponding to your platform (Windows/MacOS/Linux) and install according to the [instructions](#) for your platform
3. Register for a Zotero-account using [this form](#)
4. Open Zotero and log in with your newly made account
 - In case Zotero doesn't ask you to log in on first startup, you can always log in through the top bar menu > Edit > Preferences > Sync, as shown in the image below



Turning Zotero's weakness into a strength

Because Zotero isn't backed by a billion-dollar company (*cough cough, Elsevier*), but by a non-profit foundation, its ability to store PDF files in a cloud storage service is a bit limited. For each account, Zotero allows 200 MB of free storage for PDF files, which can be expanded at a premium. The literature's metadata (titles, authors, etc.) doesn't have a storage limit for synchronization. In other words, Mendeley offers you 500 times more bang-for-your-buck, right?

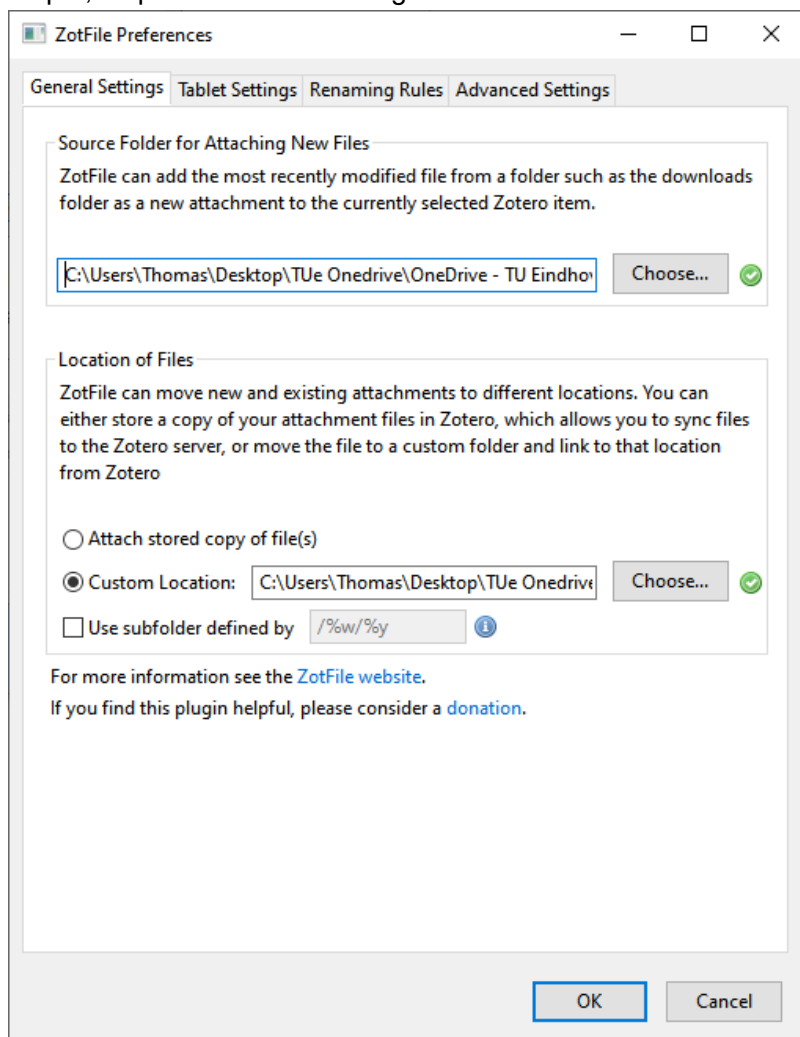
Well, not really, if you ask us. Zotero can be extended using a plugin called [ZotFile](#). When you enter a DOI/ISBN/identifier into Zotero, it will (just like Mendeley) add the metadata to your library. Usually, Zotero would now look for the PDF of the article online and store it in Zotero's own cloud storage. However, this is where ZotFile intervenes; it forces the PDF to be downloaded to a local user-specified folder.


Here's the cool thing: that user-specified folder can be a cloud storage folder in your file manager (OneDrive, Google Drive, Dropbox, etc.) which is then only constrained by the storage limit of that service. Everyone at TU/e has a OneDrive storage limit of 1 TB, which should be practically more than you would ever need for this purpose. This storage solution is also safe to use for confidential project information, since Microsoft has a contract with TU/e specifically.

Furthermore, unlike with Mendeley's and Zotero's own storage solutions, you can now browse your PDF files from anywhere that has access to your cloud storage service. That means that you can read your sources from any PC, phone, tablet or from the web; even those which Mendeley and Zotero don't have a tailor-made app for!

Task 2: Extending Zotero with ZotFile

1. Inside the OneDrive/Google Drive/Dropbox/etc. folder on your computer, create a folder for the PDFs of your references
2. Download ZotFile from its [website](#) ("Download" link in the column on the left)
3. In Zotero's top bar menu, go to Tools > Add-ons, a new window should appear
4. Click on the gear button in the upper right and select "Install add-on from file", select the .xpi-file for ZotFile you just downloaded; restart Zotero if it asks to do so
5. In Zotero's top bar menu, go to Tools > ZotFile Preferences
6. Set the "Source Folder for Attaching New Files" and "Location of Files" to the folder you created in step 1, as presented in the image below.



7. Click on the magic wand button at the top of the Zotero window , enter the DOI `10.1109/LAWP.2013.2242427` and press enter on your keyboard
8. If everything works correctly, a new article should appear in Zotero and the corresponding PDF should show up in the folder you created

No more cross-checking reference names

When you start writing an article with a full reference manager, each source will typically have both a corresponding PDF file and a citekey used by LaTeX (e.g. `\cite{geerartsbooi2023}`). Referring back and forth between these can be a bit of a pain, especially if the PDF has a name written in a completely different format than the citekey.

Furthermore, when you have a large library, Zotero's naive citekey generation function can generate duplicate keys, leading to clashes in LaTeX down the line. Mendeley falls victim to this too and may in

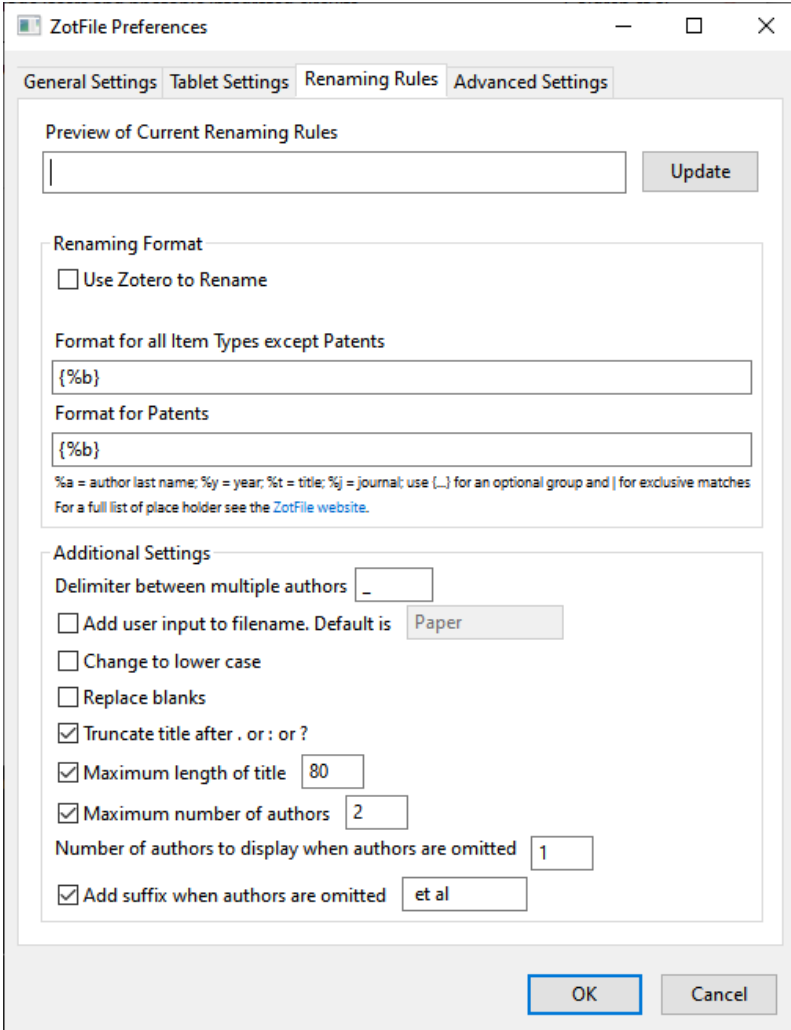
these cases change citekeys without notifying you, causing even greater disasters down the line!

The latter issue can be addressed by using the [Better BibTeX](#) plugin. Better BibTeX allows us to define our own citekey format and prevents the generation of any duplicate citekeys in our library.

After setting up Better BibTeX, we can use an additional functionality of ZotFile: renaming downloaded PDF files to any format we want. In our specific case, we'll set up ZotFile to rename PDFs to their respective citekeys. In that way, the key used in LaTeX is wholly consistent with your library of PDFs: no more searching between citekeys and PDFs!

Task 3: Setting up Better BibTeX and file renaming

1. Download the [latest release](#) of Better BibTeX from GitHub
2. Repeat step 3 and 4 of Task 2 with the newly downloaded .xpi-file
3. In Zotero's top bar menu, go to Tools > Better BibTeX Preferences
4. If you'd like, you can change the citekey formula in this window (for more info on the formula's options, have a look [here](#))
5. In Zotero's top bar menu, go to Tools > ZotFile Preferences
6. Open the tab "Renaming Rules" and set the format for all item types (and patents) to `{%b}` as presented in the image below (`{%b}` is the citekey; alternative naming schemes can be [found here](#))



ZotFile Preferences

General Settings | Tablet Settings | Renaming Rules | Advanced Settings

Preview of Current Renaming Rules

Update

Renaming Format

Use Zotero to Rename

Format for all Item Types except Patents

`{%b}`

Format for Patents

`{%b}`

%a = author last name; %y = year; %t = title; %j = journal; use [...] for an optional group and | for exclusive matches
For a full list of place holder see the ZotFile website.

Additional Settings

Delimiter between multiple authors

Add user input to filename. Default is

Change to lower case

Replace blanks

Truncate title after . or : or ?


Maximum length of title

Maximum number of authors

Number of authors to display when authors are omitted

Add suffix when authors are omitted

OK Cancel

7. Click on the magic wand button at the top of the Zotero window , enter the DOI `10.1016/j.microrel.2004.10.022` and press enter on your keyboard
8. If everything works correctly, a new article should appear in Zotero, the corresponding PDF **named as the corresponding citekey** should show up in the folder you created

To do: Add citation manually to Zotero (and use rename and move with ZotFile to change name to citekey)