

Simple export of journal citation data to Excel using any reference manager

David Brennan, MLS

See end of article for author's affiliation.

DOI: <http://dx.doi.org/10.3163/1536-5050.104.1.012>

Keywords: *Information Storage and Retrieval/Methods, Periodicals as Topic, Publications, Review Literature as Topic, Bibliography as Topic, Journal Citation Data Export*

Working with citation data from literature searches for systematic reviews can be problematic. The quantity of citations can be quite large. Export functions to the various citation managers (e.g., RefWorks, Zotero, Mendeley, EndNote) are not always sufficient to the task [1]. While some citation management software such as EndNote 6 offers an export to tab-delimited format [2], this is not always a routine process. Any data mismatch or nonstandard formatting in the input can throw off the export. Export options will differ for each reference manager, and not all supported users will have the same versions.

A number of solutions are available. For example, Evidence Partners offers their DistillerSR and DistillerSER line of products that support systematic reviews [3]. On the academic side, the University of Texas has a LibGuide with a set of preconfigured Excel workbooks for working with these citations [4]. While these tools are quite robust, they require an investment in funds or time to learn and then to customize reference managers to produce the appropriate output. Depending on the environment, there may not be funds or development resources available to take advantage of these options.

Is there a method to reliably convert citation data that does not rely on a specific version of a citation manager and does not need any third-party software or scripting that requires additional training or tools?

CONVERT CITATION DATA TO A SPREADSHEET

This brief overview outlines a method to convert citation data to a form that is easily manipulated. This method relies only on a standard output and functions that are in any spreadsheet application,

thus it is easily done by any librarian, researcher, or administrative staff.

The key to this method is to transfer citation data from the citation manager as a defined *citation* format (e.g., Modern Language Association [MLA] style), rather than a defined *file* format (e.g., RIS or BibTex), and to use that definition to create the spreadsheet file. Using a test file of 770 citations, this method took less than 5 minutes to convert data from EndNote to a workable Excel file.

To convert data from the citation manager to a spreadsheet file, you need delimiters to separate textual elements. In the MLA style for a journal citation, this delimiter can be found in the separation between the author/title and title/source, as quotes []:

Author(s). "Title of Article." *Title of Periodical* Day Month Year: pages. Medium of publication.

Note that depending on the source file format, the text may have "smart" quotes (i.e., opening and closing quotes instead of straight quotes). These will have to be replaced for Excel to delimit properly [5].

To import a dataset into a spreadsheet, export it from the citation manager to a bibliography file in MLA style. Open that file in Excel, and choose "delimited text" and the quotation character as the delimiter. Figures 1 and 2 show these two steps. An example of citations in Zotero shown in Figure 3 would appear in Excel as shown in Figure 4.

The spreadsheet can then be set up to include the coding scheme appropriate to the review process (i.e., standards such as PRISMA or MECIR). For example, flags for records excluded, and reasons or rankings for strength of evidence can be added as spreadsheet columns.

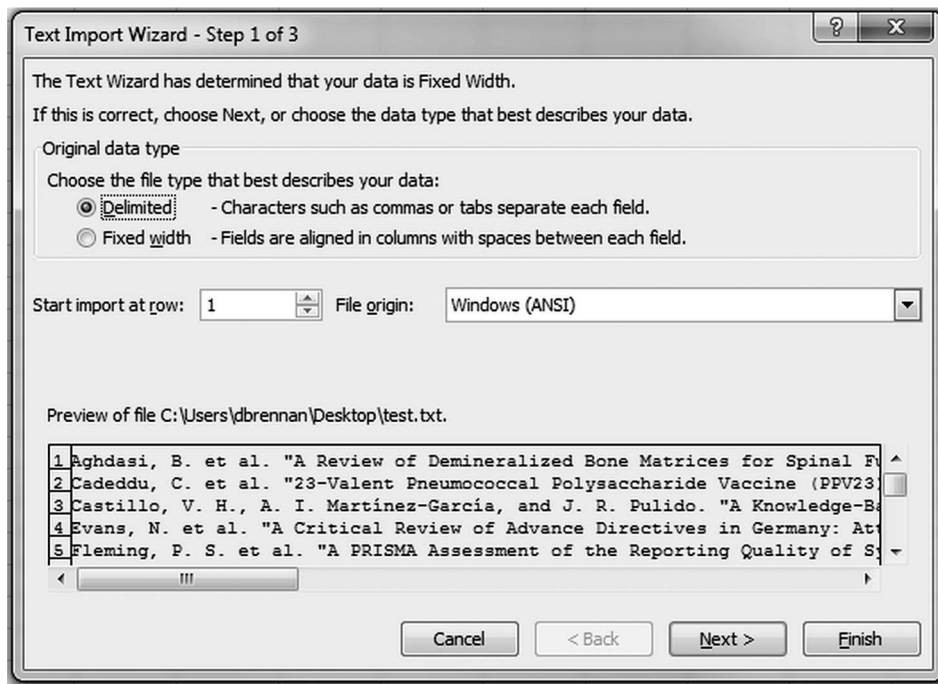


Figure 1
Text Import Wizard, step 1

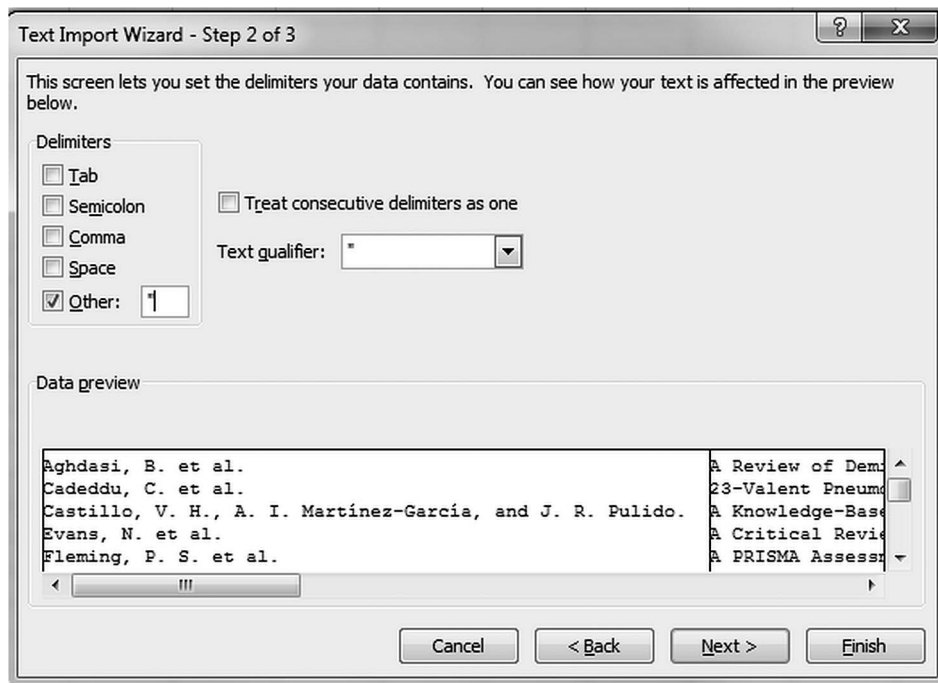


Figure 2
Text Import Wizard, step 2

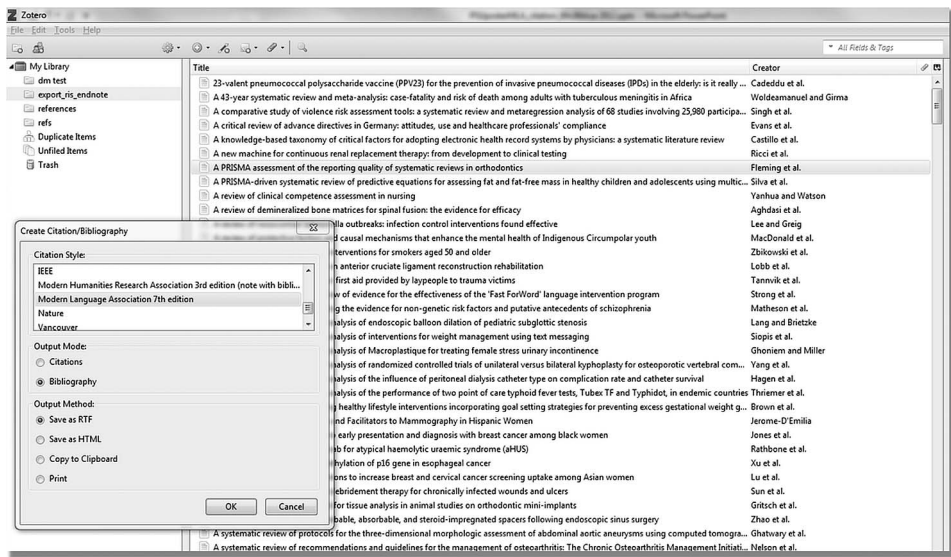


Figure 3
Citations in Zotero

Additional separation of data is also possible. Citations from PubMed have parentheses around the year data. You can use these as delimiters to separate out year data into a separate column. This will make it easy to analyze the average age of the citations or to group them into historical clusters.

This export method is not completely foolproof. If citations have additional quotes embedded in the title, they will have to be manually adjusted. However, these are a small minority in any output set and can be found by sorting on the journal citation data column. Any that were not imported cleanly will be immediately visible.

Based on feedback the author has received about this method, additional data are preferred in the

output, particularly the PubMed ID (PMID). Direct output from PubMed will already have the PMID appended to the end of the citation, from which a uniform resource locator (URL) can be created to allow for one-click access to the abstract (e.g., =HYPERLINK("www.ncbi.nlm.nih.gov/pubmed/&B1)). For citations already in a reference manager, this can be accomplished by adjusting the output style of the bibliography. Michigan State University has outlined this process in Zotero [6], and other reference managers should have similar capabilities.

While the process outlined here is not as robust as some other available solutions, it is sufficient for many tasks and well within the reach of any environment.

	A	B	C	D	E	F	G
1	Aghdasi, B. et al.	A Review of Demineralized Bone Matrices for Spinal Fusion: The Evidence for Efficacy.	Surgeon 11.1 (2013): 39-48.	Web.			
2	Cadeddu, C. et al.	23-Valent Pneumococcal Polysaccharide Vaccine (PPV23) for the Prevention of Invasive Pneumonia in the Elderly: A Systematic Review and Meta-Analysis.	J Prev Med Hyg 53.2 (2012): 101-3.	Print.			
3	Castillo, V. H., A. I. Martínez-García, and S. Fajó.	A Knowledge-Based Taxonomy of Critical Factors for Adopting Electronic Health Record Systems by Physicians: A Systematic Literature Review.	BMC Med Inform Decis Mak 10 (2010): 60.	Web.			
4	Evans, N. et al.	A Critical Review of Advance Directives in Germany: Attitudes, Use and Healthcare Professionals' Compliance.	Patient Educ Couns 87.3 (2012): 277-88.	Web.			
5	Fleming, P. S. et al.	A PRISMA Assessment of the Reporting Quality of Systematic Reviews in Orthodontics.	Angle Orthod 83.1 (2013): 158-63.	Web.			
6	Lee, M. B., and J. D. Greig.	A Review of Nosocomial Salmonella Outbreaks: Infection Control Interventions Found Effective.	Public Health 127.3 (2013): 199-206.	Web.			
7	MacDonald, J. P. et al.	A Review of Protective Factors and Causal Mechanisms That Enhance the Mental Health of Indigenous Circumpolar Youth.	Int J Circumpolar Health 72 (2013): 21775.	Web.			
8	Ricci, Z. et al.	A New Machine for Continuous Renal Replacement Therapy: From Development to Clinical Testing.	Expert Rev Med Devices 2.1 (2005): 47-55.	Web.			
9	Silva, A. M., D. A. Fields, and L. I. A.	PRISMA-Driven Systematic Review of Predictive Equations for Assessing Fat and Fat-Free Mass in Healthy Children and Adolescents Using Multiple Anthropometric Measures.	J Obes 2013 (2013): 148696.	Web.			
10	Singh, J. P., M. Grann, and S. Fajó.	A Comparative Study of Violence Risk Assessment Tools: A Systematic Review and Meta-Regression Analysis.	Clin Psychol Rev 31.3 (2011): 499-513.	Web.			
11	Woldeamanuel, Y. W., and B. G. A.	43-Year Systematic Review and Meta-Analysis: Case-Fatality and Risk of Death among Adults with Tuberculous Meningitis in Africa.	J Neurol 261.5 (2014): 851-65.	Web.			
12	Yanhua, C., and R. Watson.	A Review of Clinical Competence Assessment in Nursing.	Nurse Educ Today 31.8 (2011): 832-6.	Web.			

Figure 4
Citations transferred to Excel

REFERENCES

1. Galavan R. Exporting Endnote, Mendelay, and BibTex databases to MS Excel. Strategist.ie [Internet]. 7 Jan 2013 [cited 20 Aug 2014]. <<http://www.strategist.ie/exporting-endnote-mendelay-and-bibtex-databases-to-ms-excel/>>.
2. Health Sciences Library System, University of Pittsburgh. Export an Endnote X6 library to Excel [Internet]. The University; 6 Aug 2013 [cited 20 Aug 2014]. <<http://files.hsls.pitt.edu/files/howdoi/endnote/endnotex6/excel.pdf>>.
3. Evidence Partners. DistillerSR, DistillerCER [Internet]. [cited 25 May 2015]. <<https://distillercer.com/commercial-systematic-review-software>>.
4. School of Public Health, University of Texas Health Science Center at Houston. Excel workbooks for systematic reviews & corresponding handouts [Internet]. The University [cited 25 May 2015]. <http://libguides.sph.uth.tmc.edu/excel_SR_workbook>.
5. Microsoft. Change curly quotes to straight quotes and vice versa [Internet]. Word [cited 20 Aug 2014]. <<http://office.microsoft.com/en-us/word-help/change-curly-quotes-to-straight-quotes-and-vice-versa-HA010173242.aspx>>.
6. MSU Libraries, Michigan State University. Update: install the special MLA style, Modern Language Association 7th edition (with URL) [Internet]. The University [cited 25 May 2015]. <<http://libguides.lib.msu.edu/c.php?g=97080&p=627549> - citation style to include URLs>.

AUTHOR'S AFFILIATION



David Brennan, MLS, dbrennan@hmc.psu.edu, Assistant Librarian, Collection Development/Digital Resources Management, George T. Harrell Health Sciences Library, Penn State Hershey-Milton S. Hershey Medical Center, Penn State College of Medicine, Hershey, PA