RefManageR: Import and Manage BibTeX and BibLaTeX References in R

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Summary

RefManageR provides tools for importing and working with bibliographic references. It greatly enhances the bibentry class in R by providing a class BibEntry which stores BibTeX and BibLaTeX references, supports UTF-8 encoding, and can be easily searched by any field, by date ranges, and by various formats for name lists (author by last names, translator by full names, etc.) using R's person class (Hornik, Murdoch, and Zeileis 2012). Entries can be updated, combined, sorted, printed in a number of styles, and exported. BibTeX (Patashnik 1988) and BibLaTeX (Lehman et al. 2016) .bib files can be read into R and converted to BibEntry objects. Interfaces to NCBI's Entrez, CrossRef, and Zotero are provided for importing references and references can be created from locally stored PDFs using Poppler. Includes functions for citing and generating a bibliography with hyperlinks for documents prepared with RMarkdown or RHTML. A vignette is available to further demonstrate all functionality (McLean 2014).

BibEntry objects can be created directly in R or a .bib file can be read into R to create the object. Tools are provided for importing references from Crossref, Zotero, Google Scholar, and PDFs and for looking up PubMed ID's and DOIs.

BibEntry objects may be searched and indexed by field values, name lists, keys, dates, date ranges, etc. They can be printed in a number of formats (e.g. text, html) and most of the base bibliography styles available with BibLaTeX (e.g. alphabetic, numeric, authortitle, and authoryear). All sorting methods for bibliographies available in the BibLaTeX LaTeX package have been implemented. A function is provided to convert a BibEntry object to a character vector containing lines of a BibTeX or BibLaTeX file, converting fields, entry types and expanding crossreferences to coerce BibLaTeX entries to BibTeX if requested. The results can also be written to a file.

Citations can be gerenated in a number of styles using one of the available functions for citations. A list of references can be printed based on the works the user has cited thus far in their document. The citations and bibliography can be printed including hyperlinks using either the R Markdown or R HTML formats. A function is provided to open electronic copies of references in a PDF viewer or web browser. A simple function is provided for setting default formatting options throughout the session.

References

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