ONLINE REFERENCE MANAGEMENT SOFTWARE AVAILABLE FOR

RESEARCHERS

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In today's scientific research and production, the practice of bibliographic citation management and "backward chaining" (Palmer,Teffeau, and Pirmann 11) can be managed by dedicated software tools, commonly known as 'Personal bibliographic software's', 'Bibliographic Citation Management Software', 'Citation managers'.

Following the Telstar definition, the term "Reference Management Software" will be used (from now on shortened in RMS). According to **Telstar's definition,** RMS has two main functions: 1. building a database of citations to organize the documents useful for one's research; 2. formatting bibliographies and citations when writing papers through plug-ins or add-ons for Word processing software.

As a place of continuous and seamless interaction and integration: citations are shared, discussed, commented, suggested within members of the scientific community. sometimes adopting the features of virtual web collaboration networks, such as academic social bookmarking **(Alhoori and Furuta;Fourie)**

 RMS can act as a virtual research environment, or a platform for a "collaboratory" **(Bos ; Voss and Procter).**

Today's packages offer advanced features which vary from software to software, from the PDF storage and organization to including ways for annotation and sharing of data. The most prominent feature relates to the very nature of a "global information infrastructure"

(Borgman)

Reference management software, citation management software or personal bibliographic management software is software for scholars and authors to use for recording and utilising bibliographic citations (references). Once a citation has been recorded, it can be used time and again in generating bibliographies, such as lists of references in scholarly books, articles and essays. The development of reference management packages has been driven by the rapid expansion of scientific literature.

These software packages normally consist of a database in which full bibliographic references can be entered, plus a system for generating selective lists of articles in the different formats required by publishers and scholarly journals. Modern reference management packages can usually be integrated with word processors so that a reference list in the appropriate format is produced automatically as an article is written, reducing the risk that a cited source is not included in the reference list. They will also have a facility for importing the details of publications from bibliographic databases.

Reference management software does not do the same job as a bibliographic database, which tries to list all articles published in a particular discipline or group of disciplines; examples are those provided by Ovid Technologies (e.g. Medline), Thomson Reuters (e.g. Web of Science) or monodisciplinary learned societies e.g. the American Psychological

Association (PsycINFO). These databases are large and have to be housed on major server installations. Reference management software collects a much smaller database, of the publications that have been used or are likely to be used by a particular author or group, and such a database can easily be housed on an individual's personal computer.

Apart from managing references, most reference management software also enables users to search references from online libraries. These online libraries are usually based on Z39.50 public protocol. Users just need to specify the IP address, database name and keywords to start a Z39.50 search. It is quicker and more efficient than a web browser. However, Z39.50 is a little out of date. Some popular scientific websites, such as Google Scholar, IEEE Xplore and arXiv, do not support the Z39.50 protocol.

RM Database Features and Functions

Organization

Reference managers offer a number of ways to organize references. Generally, these fall into the categories of the old-school "folder" approach to organization and the more "Web 2.0" approach of tagging. Of the products tested, only RefWorks does not explicitly allow tagging, although a skilled user could edit the "descriptors" field to include his own taxonomy of tags. Only CiteULike lacks an explicit "folders" feature, but folder functionality could be emulated by either judicious use of tags or by creating groups. In addition, Mendeley allows users to search the full text of one's PDF library, which has been argued to

be a more straightforward method of organizing and discovering information, thereby, eliminating the need for folders or tags **(Crotty 2009).**

Searching and Sorting

All of the products tested allow searching within one's library of references, including searching of user-created notes. CiteULike and Mendeley also let users search the entire universe of references in their respective databases, making them tools for resource discovery. These two products also allow users to assign importance ratings to references and to use these as a sorting criterion. This feature is best developed in CiteULike, where users can rate references on a five-point scale ranging from "I don't really want to read it" to "Top priority!" CiteULike highlights frequently tagged articles in its "CiteGeist" list. This is certainly not a mission-critical feature, but it may enhance the value of CiteULike as a current awareness tool. Zotero and RefWorks allow searching only within one's own library, but offer field-specific searching.

Annotation

All of the products tested allow users to add notes to their references, and, if sharing is supported, to make those notes available to collaborators. Mendeley offers the important additional capability of letting users add notes directly to a saved PDF. This unique feature is very useful for researchers with large PDF libraries. It can be especially helpful when dealing with large documents, where it might be important to associate notes with particular

parts of the text. CiteULike, in keeping with its more "social" orientation, lets users post public comments on references.

Data Migration

Movement of data between various reference managers is generally very easy, thanks to standardized metadata formats, especially RIS and BibTeX. These two formats can be both exported and imported by all of the RMs examined. Formats other than RIS and BibTeX are supported by some of the products. CiteULike is unique in offering automatic syncing with a Delicious account, while Zotero allows data interchange with Firefox bookmarks, and Mendeley supports syncing with a Zotero account. Importing and exporting of data provides security as a user can download a backup of his library. It also offers flexibility by facilitating migration to a new product or enabling a user to use two RMs in concert.

Data Storage

CiteULike offers unlimited, free storage. RefWorks also offers unlimited storage, once one has paid for the product. Zotero and Mendeley offer limited free storage (100 MB and 1 GB, respectively), with the option to purchase additional storage if it is needed. Citations themselves do not take a great deal of memory, but associated PDFs can consume memory very quickly.

Sharing

All four of the products under consideration offer some capability for sharing part or all of one's reference library with other users of the product. RefWorks, as a commercial product, has a distinct disadvantage: one can easily invite a new collaborator to open an account with CiteULike or another free product, but asking him to subscribe to RefWorks would be a serious imposition. Perhaps for this reason, RefWorks is the only one of the products that does not offer the ability to create personal profiles or to locate researchers with similar interests. RefWorks offers an add-on called "RefShare" for institutional subscriptions only, which allows one to let others see a set of references, but in a completely non-interactive way. In order to truly share libraries of references, one would have to create a new account and share that username and password with others (a capability that exists without paying extra for RefShare).

"Social" features of the other three managers are similar to each other, mimicking the functionality of popular social web applications such as Facebook and Delicious. All allow users to create groups and to invite others to join those groups in order to share references. "Sharing," in this context, means that group members can edit the RM database. These groups may be designated as public or private, with the later being limited to invited members. Mendeley is unique in allowing only a certain number of members in private groups before one must pay for additional membership slots. All allow the creation of personal profiles, which may include CVs, research interests, etc. Mendeley and Zotero offer

the most robust suites of social features, with the ability to send messages to other members and the ability to search and browse for public groups.

Best Practices for Reference

To outline best practices for the reference desk, the Citation Tools Team defined four areas for citation management questions: (1) Writing and plagiarism, (2) Citation styles and formatting, (3) Knowing when to recommend a citation manager, and (4) Choosing a citation manager. Within each of these areas the team identified examples of the types of questions asked, recommended resources or services to help the user, and possible questions that reference librarians and staff might ask to better assist the user.

Personal Profile:

In your profile you can write about your academic background, publications, and your research interests. You can also search and see others' profile and add them to your contact list or send them a message. Almost it is like a basic version of Facebook profile for your academic stuffs and connections. The personal profile usually can be customized based on your preferences in the setting section.

2) Private group: This feature lets you to share your references with specific people such as your supervisor and colleagues and the references in a private group are not publicly accessible.

3) Public group: You can create a library publicly accessible for everyone under your name.

4) Note taking and annotation on shared references: This feature allows you to annotate your references on the shared references.

5) Follower & Following lists: You can follow some researchers in your following list or you can be followed by others for any post and update.

6) Collaboration newsfeed: If you are a member of a public or private group and you want to be informed for any update in those groups by email or embedded message, newsfeed feature would be the answer for you.

7) Group page and discussion forum: This feature provides an independent webpage and forum for a group where people can discuss and have conversations in the form of posted messages.

Choosing a citation style

For most papers, you will need to format your bibliography according to the citation style specified by your instructor or publisher. Some of the citation styles used at Stanford include:

MLA (Modern Language Association)

APA (American Psychological Association)

Chicago (The Chicago Manual of Style)

Choosing a citation management tool

All of the tools will help you organize your research references and all include a plug-in for word processing programs to format citations and create bibliographies. But some of the tools offer other features, such as support for collaboration, a web-based interface, and mobile applications.

The Stanford University Libraries provide campus-wide subscriptions to RefWorks and Mendeley. EndNote Web is part of the Stanford University Libraries' subscription to Web of Knowledge. Zotero is an open source tool with basic features at no charge.

Reference management in Wikipedia: Wikipedia, which runs on the MediaWiki software, has built-in tools for the management of references. These tools, in many ways, have the function of reference management software, in that they (1) automatically number the references, (2) generate the reference list and (3) create links between the component of the citation in the text and the reference list. Unlike traditional reference management tools, MediaWiki does not store references in a database constructed to facilitate ease of citation.

10 of the Best Reference Management Software's

1-RefWorks

RefWorks is an online research management, writing and collaboration tool -- is designed to help researchers easily gather, manage, store and share all types of information, as well as

generate   citations   and   bibliographies.

2- Zotero

Zotero collects all your research in a single, searchable interface. You can add PDFs, images, audio and video files, snapshots of web pages, and really anything else. Zotero automatically indexes the full-text content of your library, enabling you to find exactly what you're looking for with just a few keystrokes.

3- EasyBib

EasyBib is an intuitive information literacy platform that provides citation, note taking, and research tools that are easy-to-use and educational. EasyBib is not only accurate, fast, and comprehensive, but helps educators teach and students learn how to become effective and organized researchers.

4- Citelighter

This is an academic research platform allows students and researchers to save, organize, and automatically cite online or offline information throughout the duration of the writing process, and store content privately or aggregate it by topic to be shared with the community via Knowledge Cards.

5- Citation Machine

Citation machine helps students and professional researchers to properly credit the information that they use. Its primary goal is to make it so easy for student researchers to cite their information sources using both MLA and APA style.

6- Bibme

Bibme is a fully automatic bibliography maker that auto-fills. It's the easiest way to build a works cited page.

- Search for a book, article, website, or film, or enter the information yourself.

- Add it to your bibliography and continue citing to build your works cited list.

- Download your bibliography in either the MLA, APA, Chicago or Turabian formats. It's that easy!

7- **RefDot**

RefDot is a Chrome extension that allows users to create citations. Some of the features it provides include:

- Cite books, journals and websites (More to come).

- Automatically formats references to the correct style.

- Have the references stored in your browser.

- Automatically retrieve and store references from any amazon.com book page. The source link is stored for later viewing.

- Handles multiple authors.

- View in XML format.

- View in standard text format.

- View in HTML format.

- Automatically "flip" author name into the correct format

8- Citefast

Citefast formats your bibliographies and title pages, in APA 6th edition, MLA 7th edition and Chicago 16th edition. Citefast has recently added a slew of new features that include title page creation, in-text citations, editing capabilities and automatic citation lookup.

9- Endnote

EndNote is a software tool for publishing and managing bibliographies, citations and references on the Windows and Macintosh desktop.

10- Mendeley

Mendeley is a free reference manager and academic social network that can help you organize your research, collaborate with others online, and discover the latest research.

What's in it For Librarians?

In these days with fewer people coming into the library, and many thinking that they can easily find good, authoritative, information online themselves, the citation management

programs become a hook to draw patrons back to consulting the library and librarian for help. Librarians provide valuable information to product designers about how well their products work with library-licensed databases and provide feedback from interactions with users and frequent testing of product features and new versions. Over the years my experience with Reference Manager and EndNote, and closely working with their company's trainers, have helped the company improve the program by hearing what our patrons use and need, and how specific databases interact with their products. Developing expertise in the use and features of these programs to help the institution's faculty, researchers, and students, does increase the librarian's value in the institution. People routinely come into the library specifically looking for me to ask about a program feature, or bring in their laptop for a specific question, or call and email me to setup appointments for consultations to learn the program, whether they are new users of the program, or upgrading to a new version. Researchers and students had stopped coming to library classes on searching our licensed databases but the classes on these citation management programs draw large numbers of people into the library.

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