

USE AND AWARENESS OF REFERENCE MANAGEMENT SOFTWARE AMONG RESEARCH SCHOLARS OF SELECTED UNIVERSITY OF ASSAM

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Abstract

The purpose of the study to identify the use and awareness of research management software tools among the research scholars of selected university of Assam. The data was collected by using online survey method through questionnaire. A total number of 91 research scholars participated in this survey. The study reveals that most of the research scholars (80.21%) are aware about research management software, highest percentage of the research scholars(61.6 %) are not attended courses or workshop on reference management software, most of the research scholars(46.1%) are using Mandeley for their research activities,most of the research schoolars(60.4%)are agree that their libraries are not providing reference management software tools in libraries, highest of research scholars(34.06%)are facing problem with insufficient training, most of research scholars (39.5%) are saving their time by using research management software.

Keyword: Use, Awareness, Reference Management Software (RMS), Research Scholars, Assam.

Introduction

Reference management software is software for researchers and authors to use for recording and utilizing bibliographic citations (references) as well as managing project references either as a company or an individual. Reference management software is also known as bibliographic management software or citation management software. There are some popular Research management software available, including Zotero, Mendeley, Endnote, RefWorks, Citavi, Jab Ref, Pro Cite, Bookends, Papers, Qiqqa and others. All these reference management software packages are designed by different agencies. These reference management systems help to organize the bibliography with a single click because different journals require the references in different formats such as Vancouver and American Psychological association (APA). The main purpose of reference management software is to organize, store, and format references within a manuscript. 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. Reference management software packages have existed since the 1980 and it is widely used today. There are four

widely-used referencing styles. They are called the MLA (Modern Languages Association) system, the APA (American Psychological Association) system, the Harvard system, and the MHRA (Modern Humanities Research Association) system. The development of first reference management software can be traced to the 1980s (Gilmour & Cobus-Kuo, 2011). Just like many software packages, there are open source and subscription-based reference management software. Moreover, these software applications vary in features, which include capacity to machine-readable file formats that can be exported, file formats which can be imported into the software, referencing styles, reference list file formats, word processor integration, database connectivity, and password protection/network functionality.

Need of the study

For academic writing, citing or acknowledging the documents is the most important part. Providing the information on copyright, how to avoid plagiarism, checking the originality of the content through anti-plagiarism softwares, how to cite properly etc. are the duties of academic librarians being the custodian of information and it is also an important part of information literacy. According to American College and Research Libraries (ACRL, 2000) information literacy competency standards for Higher education, use of referencing style is one of the competencies for being information literate. Indian Institute of Technology Delhi was established in 1961. Since then, its research is helping Indian society to overcome the various daily needs based problems. Recently, it has granted the status of Institute of Eminence (IoE). Central library, IIT Delhi is acquiring and subscribing a huge amount of information resources both in print and online to cater the needs of its researchers. It is also organizing various workshops and training programmes to help the research scholars for the academic writing. Every year one or two workshops has been conducted for managing the references while writing. In the light of above statement, this study will be fruitful to know the awareness and the use of reference management tools by the research scholars of selected university of Assam. The study will help to determine the possible factors and choice of a particular reference management software.

Objective of the study

- a) To know the awareness on reference management software tools among the research scholars of selected university of Assam
- b) To know the major trends in the usage of the reference management software among the research scholars.
- c) To identify the problems associated with the use of reference management software.
- d) To find out whether the libraries are providing reference management tools for research scholars in selected university of Assam.
- e) To identify the benefits derived from the use of reference management software.

Scope of the study

The present study covers only the Research Scholars of in various departments of Selected University from Assam.

Research methodology

A survey method was selected for this study. Questionnaire tool was used to collect the data, and these questions were distributed forwarded to through G-mail, what's up group, face book groups to collect the data from the scholars. A total number of 91 responses were received and after careful analysis of the result were given.

Literature review

Gatten (2010) examined the 217 articles in three fashion journals and each reference was verified with the original source of article in six fields such as article title, author name(s), journal title, pagination, volume and year. The researcher reported that 49.3% errors contained in references in 107 articles, yielding a total errors of 142.

Fourie (2011) explored the potential of personal information management (PIM), and reference management. It seeks to focus on how librarians can stay alert on new developments regarding PIM and related issues such as plagiarism, reference techniques, and information literacy and information behaviour.

Hensley (2011) concluded that Mendeley includes importation of PDF metadata, automatic naming and filing of documents, opening of multiple PDF's in a single application which are navigable by tab, ability to highlight and finally annotate PDF's within the application

Zhang(2012) compares four reference management tools, one of which is licensed by University of Medicine and Dentistry of New Jersey libraries and the other three are open source and freely available. They were chosen based on their functionality, ease of use, availability to library users, and popularity. These four tools are EndNote/EndNote Web, Zotero, Connotea, and Mendeley Desktop/ Mendeley Web. Each tool is analyzed in terms of the following features: accessing, collecting, organizing, collaborating, and citing/formatting.

Francese (2013) found that EndNote was the most popular and most academic were aware of it. The least known were Citavi and Qiqqa and none of the respondents have made use of them. The findings of the study also revealed that most of the respondents use RMS because it was used or suggested by other colleagues. It was also shown that most of the respondents use RMS to insert citations into their research papers.

Ram and Anbu (2014) studied the use of bibliographic management software by Indian library and information science (LIS) professionals. The findings show that there is need to improve the LIS professionals' awareness of bibliographic management software at the institutional level and also hands-on experience is needed to help in the process of research writing and advocate for adopting correct referencing style while writing scholarly articles.

Tramullas and Others (2015) presented a systematic review of published studies that evaluate reference management software with a comparative approach. The objective is to identify the types, models, and evaluation criteria that authors have adopted, in order to determine whether the methods used provide adequate methodological rigor and useful contributions to the field of study.

A brief overview about some reference management software

Mendeley: The basic version of this RMS is free and can run in major platforms like Mac, Linux and Windows. Payment is required for some additional features It provides a desktop version of the software that integrates with the based web version.

Zotero: It is originally a Firefox plugin and has recently released a beta version 3.0 that works on platforms like Mac, Windows and Linux. Zotero also supports new plugins for the Google and Safari browsers.

Endnote: It is a heavy weight RMS package with extensive features specially the ability to connect to databases from Endnote and search and download articles using Endnote software. Currently version 15 (X5) of Endnote is working.

Reference Manager: It is another heavyweight package owned by Thomson Reuters, who own the Endnote. Currently its 12 version is running.

Papers2 for the Mac: Papers2 is the only package designed specifically for Macs. It is an updated version of Papers with an online interface known as Livfe which links to the desktop version to allow sharing references on the web and collaborative working.

RefWorks: It is a Web based product, which can be accessed wherever there is an Internet connection. Product is primarily sold to institutions for multi user access, Universities Colleges and research organizations.

Importance of reference management software

The scholarly research process mandatorily requires a thorough review of existing literature and acknowledging the consulting sources is very important to maintain academic integrity and avoid plagiarism. Reference Management Software's help a researcher in managing references from a specialized database that allows to capture, store, organize and share references that are relevant to the particular research area. Reference management software or citation management software is used by academic writers for creating and utilizing bibliographic citations. Reference management software's support different referencing styles and creates references as per its requirements. After recording citation once, it can be used for several times in scholarly books, articles and essays. Most of these reference management packages include a database in which full bibliographic details of scholarly contents are preserved. Author can generate selected lists of references in the different formats as per the guideline of the journal of his selection. Some modern reference management packages give features of integration with word processors. Due to this feature a reference list in the selected format is produced automatically as an article is written which minimizes the risk of non-inclusion of a cited source in the reference list and it can be easily imported from bibliographic databases. Reference management software's don't only help in managing references, but also permit users to search references from online libraries. These online libraries are usually based on Z39.50 public protocol. Use of the Reference Management Software is essential because-

- a) It reduces the time duration and effort of citation creation.
- b) It increases effectiveness and accuracy of citations.
- c) It lowers the risk of plagiarism.
- d) Adoption of technical support for research is important.
- e) To avoid human error.

Data Analysis and Interpretation

General information of Surveyed University of Assam

Table 1: General information of Surveyed University of Assam

Sl. No.	Name of University	Year of Establishment
1	Cotton University	1901
2	Gauhati University	1948
3	Dibrugarh University	1965
4	Tezpur University	1994

Awareness on Reference Management Software

Table 2: Awareness on Reference Management Software

Reply	Response	Percentage
Yes	73	80.21%
No	18	19.7%
Total	91	100

It has observed from the table 1 that most of the respondents' i.e 80.21 % are aware of the reference management software and 19.7% of the respondents are not aware of the reference management software.

Attended courses/ workshop on Reference Management Software

A question has been asked the respondents that they attended any course/ workshop on reference management software. The replies given by them are shown in Table 3.

Table 3: Attended courses/ workshop on Reference Management Software.

Reply	Response	Percentage
Yes	35	38.4%
No	56	61%
Total	91	100%

It has clear from the above table 3 that highest percentage respondents (61%) are not attended any course or workshop on reference management software and only 38.4% of respondents attended course/workshop on reference management software.

Most used Reference Management Software

A question has been asked the respondents to know which Reference management software use for their reference work. The replies given by them are shown in table 4

Table 4: Most used Reference Management Software

RMS Tools	Responses	Percentage
Mandeley	42	46.1%
Zotero	38	41.7%
Endnote	2	2.1%

Bibtex	1	0.1%
Paper	1	0.1%
Reference Management	0	0%
Citavi	1	0.1 %
Refworks	1	0%
EndNote Web	2	2.1%
BibDesk	1	0.1%
Qiqqa	0	0%
CitUlike	0	0%
JobRef	1	0.1%
Book Ends	1	0.1%

It is found from the above table that most of the respondents (46.1%) are using Mandeley for their research work followed by Zotero (41.7%), Endnote (0.1%), Bibtex (0.1%), Paper (0.1%), Citavi (0.1%), End Note Web (2.1%), Bibdesk (0.1%), JobRef (0.1%), Book Ends (0.1%) and Reference management, Qikka, Cit Ulike are nill response.

Provision of Reference Management Software (RMS) in Libraries

A question has been posed to the respondents to know that their libraries are providing RMS tools for their research work. The replies given by them are shown in table 5

Table 5: Provision of Reference Management Software (RMS) in Libraries

Reply	Response	Percentage
Yes	36	39.5%
No	55	60.4%
Total	91	100%

It is clear from the table that most of the respondents i.e 60.4% are agree that there libraries are not providing reference management software in libraries and remaining 39.5% of respondents are answered positively regarding the same.

Problems while using Reference Management Software

Table 6: Problems while using Reference Management Software

Problems	No. of Respondents	Percentage of Respondents
Insufficient training	31	34.06%
Lack of technical support	22	24.1%
Slow internet bandwidth	7	7%
Time Consuming	3	3%
Software is too complex	3	3%
Language difficulties	2	2%
Lack of library staff support	23	25.2%
Total	91	100%

It is clear from the table that highest number of respondents (34.06%) are facing problem with insufficient training followed by lack of technical support (24.1%) and lack of library staff support (25.2%), slow internet bandwidth (7%),time consuming (3%), software is too complex (3%), language difficulties (2%)

Benefits derived from the use of Reference Management Software

Table 7: Benefits derived from the use of Reference Management Software

Benefits	No of Respondents	Percentage
Saves Time	36	39.5%
Easy to cite/Provide reference	32	35.1%
Easy generation of bibliography	10	10.9%
Easy download and installation	11	12.2%
Free Storage	2	2%
Total	91	100%

It was found from the above table that save the time of researchers and easy to provide references is a common benefit of using reference management software. 10.9% of respondents said easy generation of bibliography is a benefit of using reference management software and 12.2% of respondents said easy download and installation is a benefit of using reference management software.

Findings

- a) It was found from the study that a lion's share of respondents aware about reference management reference.
- b) It was seen in this study that highest percentage of respondents are not attended any course or workshop on reference management software
- c) It was found from the study that Mendeley is the most used reference management software among research scholars of Assam.
- d) It was found from the study that most of surveyed university library not providing reference management software for their researchers.
- e) It was seen from the study that highest number of respondents are facing problem due to insufficient training while using reference management software.
- f) It was found from the study that save the time of researchers and easy to provide references is a common benefit of using reference management software.

Conclusion

Reference Management Software helps produce bibliographies in the correct format. It helps in acknowledging someone's ideas, works and avoids serious academic dishonesty. It provides proper justification and supports the theories, models, frameworks or facts that are used to create an intellectual output and work as a signpost to the reader indicating where they can easily find the relevant research. Representation of someone's work as one's own work is called plagiarism. Proper referencing and acknowledging others' work can avoid plagiarism. Academic integrity is the ethical value that gives values to someone's work and respect to the person. So, it can be said that use of a reference management tool can enhance academic integrity. Academicians, Researchers, other content writers can go for various RMS as per their requirement. However, some studies claim that some of the free RMS has disappeared over the years, so it is a matter of concern that if a product will suddenly disappear without notice then the user will lose access to the data. Some free software's are free only for basic level; one may have to pay for an upgrade version to access more features.

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