Review Paper

Promoting the Use of Reference Management Tools: An Opportunity for Librarians to Promote Scientific Tradition

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ABSTRACT

The scientific tradition entails that any scientific work needs to be cited if it is responsible for the development of further another research work. This review article discusses the role of library professionals in promoting Reference Management Tools (RMTs) amongst the teachers, students, and researchers to maintain the scientific tradition of citation management. Among the various citation management tools available, four exemplary tools have been discussed briefly. The review of the literature revealed that the users have mixed responses pertaining to the use of RMTs. Especially; the common experience in respect of quality usage is very low. The users seemed to have limited themselves to make use of RMTs for reference management instead of exploring all the options associated with it. An attempt has been made to highlight why and how librarians should promote RMTs in the academic environment. Since librarians are considered experts in the field of reference management, they must grab this opportunity to strengthen the profession. The article urges the library professionals to get expertise in using RMTs so as to promote them successfully for academic writing and research activities.

Keywords: Scientific tradition; Reference management; Citation management; Reference management tools; Role of librarians

1. INTRODUCTION

Reference management is a key to academic writing and forms a vital part of the research process. Of late, the scenario has changed from managing references manually to using reference management tools (RMT). A lot of RMTs are available to the academic community for reference management. They are called by a variety of names such as 'bibliographic management tools', 'citation management tools' and 'reference management tools. However, these nomenclatures have been considered synonymously in this review paper. It is always presumed that library professionals have to play a key role in increasing the usage of these tools. Nevertheless, there are not too many studies in existence to discuss the role of librarians to bring this presumption to reality. The present article is a review to figure out why librarians need to do this task and how they are to accomplish the same. The article does not discuss in detail reference management tools or their technical aspects. But the focus is on the role of librarians in promoting RMTs.

2. SIGNIFICANCE OF SCIENTIFIC TRADITION

It is a matter of debate whether any scientific article can be produced without its connection with prior works. Here another question arises, that is, can there be any scientific product on its

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own? The question implies the existence of a research product that is so innovative that the researcher does not feel the need to cite others. In fact, the question is too difficult to answer. But one thing is certain that when a researcher or a group of researchers produces any scientific product, they develop it on the basis of earlier works. As such, those works need to be cited to maintain the scientific tradition. The process of citing others reveals previous researchers' ideas, concepts, methods, and apparatus, etc. which were used by the author in developing citing article¹. Weinstock has pointed out 15 reasons for giving citations in scientific documents.

- Paying homage to pioneers
- Giving credit for related work
- Identifying methodology, equipment, etc.
- Providing background reading
- Correcting one's own work
- Correcting the works of others
- Criticizing previous work
- Substituting claims
- Altering researcher to forthcoming work
- Providing leads poorly disseminated poorly indexed or incited work
- Authenticating data and classes of fact physical constants,
- Identifying the original publications in which an idea or concept was discussed

- Identifying the original publication describing an eponymic concepts or terms as, e.g. Hodgkin's disease, Lareto's Law, and Friedal crafts reaction
- Disclaiming the work or idea of others
- Disputing priority of others.

Concisely, the research product as a complete entity is not necessarily the sole creation of one's mind, but the publications by other authors are also serving as a ladder to reach up to the ultimate culmination of research output. Here lays the significance to maintain the scientific tradition.

3. OBJECTIVE OF THE STUDY

The study has been conducted on the basis of following objectives.

- To focus the importance of maintaining the scientific tradition of citation management
- To study the level of usage of RMTs amongst the users
- To discuss the stance to be taken by the library professionals in promoting the RMTs for reference management.

4. METHODOLOGY

The paper adopts an analytical approach based on the published literature on RMTs and their different aspects connected with the library profession. In a nutshell, it is a review paper designed on the basis of published literature. The literature search was carried out by searching Emerald Insight, LISA, Academic Search Ultimate and Google Scholar. Several keywords were tried instead of specific search query adhering to the title and objectives of the study. The titles and abstracts of the relevant documents were read followed by browsing the content of the papers. In this way, 40 documents were selected comprehensive of a few traditional sources also. These documents formed the basis for writing the paper. The review of literature disclosed that there was no study visible that dealt directly with the issue discussed in the paper. Most of the studies either focused on exploring different types of RMTs along with their features or were survey types in which the usage of these tools was assessed. The review of literature also focused that library professionals have been considered as the experts in the field of citation management and guide the researchers in terms of using RMTs while writing any scientific document. The paper upholds the central argument about roles to be played by the library professionals in promoting RMTs on the basis of published facts.

5. CITATION/REFERENCE MANAGEMENT

The scientific tradition of citing others has accelerated the importance of proper management of references which are supposed to be apt in all the aspects of bibliographical details e.g. author, title, publication, source, year, edition, page number, URL or DOI, and date of access for e-resources. A well-defined structure of reference management is a part of scientific writing. Referencing denotes a scientific temper to refer to a data source by providing a standard set of information, allowing its easy identification, searchability, and retrieval². Citation management mostly reflects the reciprocal relationship between the cited document and the citing

document. Yet, citing document is the one that largely borrows from cited document. A Cited document may be related to the former due to the subject similarity, continuation of previous research work or may be motivational to erect some new ideas and so on. Nevertheless, this relation is indirect rather than direct since the citing document forms the relationship with cited document. The larger availability of open access material, the internet, copyright issues, insistence on academic integrity, and maintaining scientific values of research have forced researchers and publishers to emphasise proper citation of the material in academic and research writings³. Hence, citation management holds a great opportunity to showcase librarians' expertise in the research process and ethical publication of scholarly research works⁴.

6. REFERENCE MANAGEMENT TOOLS

The review of literature shows that there is no classic definition or clearly described concept of RMT beyond the generic claims⁵. The functions of RMTs include importing references from online databases, gathering metadata from PDF, organizing and inserting citations, searching from multiple databases with multiple search options, annotating citations, sharing references, exchange of data with other RMTs, formatting citations in required citation style, integrating with other word processors, and offline availability⁶. Different forms of information sources such as websites, blogs, wikis, video clips, e-books, etc have made the management of citations difficult⁷. Moreover, it is very difficult to maintain the complex metadata of non-traditional or web-based material. Even the journals in specific subjects do not have specific citations style. In fact, different journals adopt multitude of citation styles. RMTs make it easier to switch over to the required citation style. Of late, the management of research data has become a very serious issue for organisations. Scientists find it really difficult to cope with such a complex and the massive amount of data. Moreover, the same data has to be used again and again. RMTs can provide solutions to this to some extent8. Recently many bibliometricians are using RMTs to undertake almetrics study to get more comprehensive results9.

In short, RMT offers solutions to all the problems that one is likely to encounter in the management of citations. There are various RMTs such as BibTeX, CiteULike, EndNote, Mendeley, Papers, RefWorks, and Zotero for capturing and managing scholarly information¹⁰. Out of these, four major tools have been succinctly discussed as below:

6.1 EndNote

EndNote is a reference management system by Clarivate Analytics which has both a desktop and online component. When it is used on the desktop, it is called 'EndNote desktop'. When used online, it is called 'EndNote Online', thus providing cloud-based solution. EndNote online allows sharing unlimited references and unlimited attachements¹¹. It is also available for iPad and iPhone in-app store¹². An institutional package is also available which might offer a greater discount¹⁰. Cite While You Write plug-in allows inserting references automatically. The bibliography is generated at the same time at the end of the documents. References can automatically be imported in the

EndNote library using Capture Reference bookmarket with any browser or the EndNote Capture toolbar for Internet Explorer (Window Only). Installation of Kopernio browser plug-in gets you pdf faster by securely connecting library's journal subscription and open access content. Syncing the desktop and online references would make them available on any internet browser. EndNote is also capable of importing references in plain text format, enter a reference manually, organise and share references, delete duplicate references and search certain web-based databases. EndNote is equally helpful to find an appropriate journal for your manuscript submission¹³. It also allows viewing and annotating PDFs. One may think against the purchasing of EndNote since there are some other and free alternatives. But it is worth considering for purchase since it has been regarded as a classical piece of software for citation management and formal technical support offered with the purchase of product10.

6.2 Zotero

Zotero is a project of the corporation for Digital Scholarship, a nonprofit organisation dedicated to the development of software and service for researchers and cultural heritage institutions¹⁴. It is a free citation management tool to collect, organises, cite, and share research. Zotero allows the users to add any items, edit them, add PDF and other files, add by an identifier, save several web pages, import to Zotero from other tools, import citations from scholarly databases, and manually add items. The items can further be saved into groups and subgroups with the insertion of tags for characterisation of items. Zotero also supports advanced search options along with PDF full-text indexing. One can sort on the basis of bibliometric parameters, add child notes, standalone notes, and searching notes and co-relate the items, and find and merge the duplicates. Zotero equally integrates with word and allows the generation of bibliography and reports. It saves data on a personal desktop; however, you can use the same data on any other PC by data syncing and file syncing. Around 8000 different citation styles are supported by Zotero¹⁵. Zotero is more seemed to be accepted and used by humanities and social science faculties as it saves and organises multimedia files, such as act work, sound recordings, or other primary sources along with citations¹⁶.

6.3 RefWorks

In fact, RefWorks and EndNote have been accepted as the most popular reference management tools¹⁷. RefWorks is a popular reference management tool that aims to increase research productivity for publishing and managing citations, bibliographies, and references. It completely provides a cloud-based solution, and so requires no syncing. It finds access, store, and organise any form of research material from PubMed, Library of Congress and other hundreds of library catalogues. One can edit and reuse as per one's need. It is supportive of group projects and allows editing as a team in real-time. It manages copyright compliance of full-text sharing. It supports PDF, PowerPoint, Word, Excel, and HTML files, and a browser based interface provides the same interface regardless of any kind of platform. An option called

Save-to RefWorks Bookmarket enables capturing references from web pages and Google Scholar. Bibliographic metadata can be imported in multiple file formats. RefWorks integration with Ex libris discovery services ensures access and autocompletion of citations. It helps to annotate and highlight, share references and documents individually and in a collaborative environment. Write-N-Cite option allows insertion of citations while writing. It supports more than 4000 citation styles. The publisher of RefWorks claims to allow the users their own style, define custom style, and access institutional styles¹⁸.

6.4 Mendeley

It is a reference manager owned by Elsevier. It is a free web and desktop reference management application¹⁹. Mendeley desktop can easily be downloaded into a computer. Mendeley web allows you to access the web version of the library, edit profile, and search for papers, groups or, people. Mendeley web importer which is actually a browser extension assists you to add references from the web to your library. One can reap the additional benefits by downloading the citation plug-in that will allow you to insert citations as per your need and format bibliography according to your chosen style²⁰.

7. USAGE OF RMTS AMONGST THE USERS

The users of RMTs think that these tools can be used only to gather, manage, organise, and use citations as and when required in the writing process. Nevertheless, many new features have been incorporated into it and many renowned publishers are associated with these tools. For example, Mendeley is owned by Elsevier, and ENDNOTE is owned by Clarivate Analytics. They are supporting them to the benefit of the academic community. Users seemed to have mixed responses with regard to the use of RMTs. Its usage is also dependant on its awareness among the users and how institutes promote these tools. In-country like India, the usage is not so pervasive, though the observation needs to provide ground by conducting some exploratory studies.

Research scholars have the knowledge of RMTs; however, in terms of quality usage, it is low21. Most of the time, they come to know about these tools either through self awareness²² or through their seniors or colleague using particular tool21. Their adoption of a particular tool is not always influenced by mentors or peers²³. In fact, it is their perception, experience, and comforts are the determinant factors. Apart from the several features available with RMTs, managing of references has often been rated as the leading one^{22, 24}. It has been noticed that users try to use RMTs in a practical way and seldom use all the features associated with it21. Enrico Francese observed²¹ that using these tools can be helpful to form virtual collaboration. But the users sometimes limit themselves to use it in more conservative ways such as email systems, peer to peer communication systems, or cloud-based folder systems like drop-box. The users think academic librarians should license an RMT to enhance its usage²⁴. The social features associated with RMTs can be helpful to increase its usage. The users are also found creating a group for collaboration, sharing citations with others, and viewing others' citation²⁴. But the proportion is not as that much high as expected. The tools like Mendeley and Zotero allow the user to create private groups and share references, article notes, tags, and full-text articles²⁵.

Some users seemed to have a negative opinion about using RMTs. According to these students using these tools result in procrastinating more important work in the research process²³. Probably these students think learning such tools require some time, effort, and energy which might sideline their research work even being a top priority. Moreover, this does not belong to their subject domain even though promoters of the tools claim that it actually accelerates the research work. One need to get at least average skills in using any of the tools that create extra pressure for the end-user and may prove to be unfruitful and disappointing.

8. LIBRARIANS' ROLE IN PRAMOTING RMTS

8.1 Why Librarians Should Promote RMTs

Academic librarians have always tried to establish themselves as an expert in information collection and providing scientific access to it. Thus, they must be careful enough to reposition themselves along with demonstrating library values to the academic community. Promoting RMTs is a kind of embedded librarianship²⁶. Librarians have been regarded as a specialist in the management of citations and we have also been promoting ourselves as being so and as such it is up to us how we relate RMTs to the traditional reference management system and show the benefit over the later. Tramullas, Sanchez-Casabon, and Picazo in their study pointed out⁵ that library professionals have failed to promote RMTs theoretically and technically. He even considered the literature published by them to be of mediocre quality. Since many studies revealed that library professionals themselves are not using RMTs to a greater extent, it becomes really questionable as to how they will promote users towards the use of these tools²⁷.

The users have expressed contrary opinion for librarians to unravel their tribulations²³. The core reason for this is that librarians are not their subject teachers resulting in less faith for them²¹. It is quite natural for them to doubt the utility of librarians in respect of study; teaching and research^{28, 29, 30}. They do not regard them as equal to teaching faculty and approach less in connection with any query related to their research topic. The library professionals have been treated as sub-ordinate even though they may be willing to help them³¹.

Hence we need to resort to subject-based librarianship or embedded librarianship to wipe down this image. There should not be any second thought about librarians being the authority in the domain of bibliographical data and its management. Today, academic libraries cannot devoid of e-resource which consists of complex metadata. Even though subject teachers are using the e-resources, they have confined themselves to their personal research or to some extent collaborative research which has gained the ground. Here, we can explain to them how RMTs can be useful to them in importing the data in more scientific and structured way¹⁰ because faculty members do not think that they scrupulously have the need of teaching RMTs to students¹⁶. The strong emergence of social media has not only influenced public life but academic and research activities also. Hence along with social media, RMTs can be

used to highlight research activities, form network, develop collaboration, keep abreast with the latest developments, share, and disseminate research and even find job opportunities⁹. It is here that librarians can explore themselves to the benefit of the academic community. Librarians as information disseminators are aligned with the United Nations 2030 Agenda target under Sustainable Development Goal (SDG) 16³². So academic libraries are obliged to create smart tools and take them towards stakeholders. Promoting RMTs by the library professionals pave the way to walk around this area.

8.2 Dilemma before the Library Professionals

Of late, a number of tools have been available for citation management. These tools, their features, and consistent upgradation baffle not only the users but to the library professionals also who are supposed to assist the prior. Sometimes they are not in a position to decide the level of support they should offer to their clientle²⁴ and create mechanisms accordingly. Unless the librarians have a specific *modus operandi*, they will not be able to resolve the issue and take the stand they are supposed to take. Otherwise, users may give a negative opinion that librarians do not play a key role in suggesting the citation tool as found in the study by Jenny E²⁴. As a result, the librarians have to promote RMTs as their professional agenda which might offer some guidelines to upcoming professionals who will be trying to adapt to the current trend.

8.3 How to Promote RMTs

The use of RMTs forms the part of academic writing. As such, writing assignments may be a good practice to enhance the skills in using RMTs. This would result in increasing the research writing skills while contributing to scholarly journals.

Before teaching RMTs directly to stakeholders, librarians can take initiative to introduce prominent reference styles to the stakeholders that would help them to know a variety of existing citation styles and they may choose any according to their need. This can also serve as a good exercise before actually using RMTs.

As per University Grants Commission³³ (Minimum Standards and Procedure for Award of M.Phil/Ph.D Degree) Regulation, 2016, the course work has been considered as an essential prerequisite for M.Phil and Ph.D. preparation. The course is consisting of research methodology, quantitative methods, computer application, and research ethics. So this course can also be a good platform to aware researchers of RMTs since it is connected with a computer application. Understanding reference management and resorting to RMTs in preparation of research design is always a good practice to use further in writing a thesis.

Submitting assignment by using a particular style guide should be compulsory practice for UG and PG students. Initially, they are to ask to do citation management manually. This kind of exercise will help them to understand the grammar concerning it and they will come to know the significance of RMTs.

Training in reference management has to be one of the important parts of the information literacy program as this would

offer a more systematic approach to citation management³⁴. The majority of educational institutions do not have a regular schedule for providing training on RMTs9. The organisation of institutional workshops for the promotion of citation management tools is also a good practice and users also demand to have such workshops²⁴. Integration of citation management in the curriculum of library education and research-oriented courses promises to enhance the usage of RMTs effectively. Moreover, learning these tools through formal education will boost the confidence of librarians to explore them further. A concern has often been raised about librarians' mastery of RMTs²⁷ as they would not be able to teach and influence others unless they have proficiency and some driving force. It is also observed that users do not read the manuals and reading materials consistently to learn specific tools in a structured way even though it contains step-by-step procedures to use the same. So post-workshop follow-ups are essential to ensure the usage of RMTs and issues connected with it. It is often neglected as to how users react after a training session has been over²³. We should be passionate enough to know whether the program fulfilled the objective set forth from the perspective of attendees. Library professionals need to take a thoughtful practical approach that allows an individual to assess, evaluate and revise their own habits and workflow³⁵.

8.4 Challenges Lay Ahead

Only the awareness of RMTs is not sufficient, but they themselves have to use it to promote them successfully. In this respect findings of the study³⁶ by Ram and Anbu K with regard to the use of bibliographic management software by Indian library professionals are worth considering. They found that around 39 per cent library professionals were not aware of citation styles, while 50.95 per cent professionals confirmed their awareness about RMTs. 54.63 per cent of respondents accepted of never having used any of the tools. Only 10.96 per cent of professionals were using these tools consistently for their work. The lack of ICT skills has often been pointed out by library users³⁷. They also think that social media is not fully explored by the libraries in respect with their services³⁸. This is an alarming situation for library professionals in that we assume to be expert of reference management and call ourselves as a promoter of RMTs.

The core challenge before the library professionals is to become determinant with regard to the roles to be played. The ambiguity of any kind will neither benefit them nor the future prospect of the profession. The stance taken by them would reflect why and how they have to promote RMTs. It will be worth watching to see how far they can convince the user that using RMTs forms the part of the research process and it is going to benefit in the long academic and research career. A perfect strategy to implement will assist them to move forward. There is also a great challenge in convincing the users that using RMTs is not a burdensome and extra task apart from their research work. Nevertheless, it is also true that they have to make up their mind to learn hard skills in using RMTs. This keeps very important for those novice users whose anxiety levels will be at the highest level while learning something new³¹. The library people have to recognise and

accept that there might be a phobia in using RMTs. In this respect, considerate, thoughtful, and cheering approach is desired from them in company with providing pressure-free practice session and locations³⁹. The library professionals are accountable for bringing more profound research related to these results instead of repetitive results from third parties. A research-based on naturalistic observations of the actual research process is required instead of merely assessing the attitude towards RMTs on the basis of surveys and interviews²³. The role played by library professionals is also going to provide a brighter opportunity to sustain their profession, though they have to find out additional means to supplement this.

9. CONCLUSION

To conclude, it can be said that RMTs are really worth considering for managing citations adhering to the maintenance of scientific tradition. Even though it is more of a personal tool and more often used for managing citations, it can be used in a more creative way using its advanced features. Here the library professionals should take initiative and show their expertise. The study of RMTs should form an essential aspect of LIS education. Further, a systematic approach is recommended to train users through information literacy programs, workshops, and training programs. Librarians should also take the initiative to go for institutional purchase to enhance its usage to nurture scientific tradition. Some sincere efforts on the part of librarians would offer one of the means to sustain the profession and enrich the profile of libraries⁴⁰. The broad area explored in the study in connection with the role to be played by the library professionals in promoting RMTs emphasises the significance of the study and offer directions for further study in this area.

REFERENCES

- 1. Weinstock, M. Citation Indexes. *In* Encyclopedia of Library & Information Science, edited by A. Kent & H. Lancour. M. Dekker, New York, 1971, 16-24.
- Kali, A. Reference management: A critical element of scientific writing. *J. Adv. Pharmaceutical Technol. Res.*, 2016, 7(1), 27-29. doi: 10.4103/2231-4040.169875.
- 3. McCullen, C. Tactics and resources to help students avoid plagiarism. *Multimedia Schools*, 2003, **10**(6), 40-43.
- Harrison, M.; Summerton, S. & Peters, K. EndNote training for academic staff and students: The experience of the manchester metropolitan university library. *New Rev. Acad. Libr.*, 2005, 11(1), 31-40. doi: 10.1080/13614530500417594.
- Tramullas, J.; Sanchez-Casabon, A.I. & Picazo, P.G. Studies and analysis of reference management software: A literature review. *El profesional de la información*, 2015, 24 (5), 680-688. doi: 10.3145/epi.2015.sep.17.
- Gilmour, R. & Cobus-Kuo, L. Reference management software: A comparative analysis of four products. *Issues Sci. Technol. Libr.*, 2011, http://www.istl.org/11-summer/refereed2.html (Accessed on 5 Feb., 2021)
- 7. Sarrafzadeh, M. & Khaleghi, N. Instruction of citation management tools by academic librarians: The need

- for training the trainers. *Webology*, 2017, **14**(1), 53-65.https://www.proquest.com/scholarly-journals/instruction-citation-management-tools-academic/docview/1977514591/se-2?accountid=35054. (Accessed on 12 March, 2021).
- 8. Singh, B.P. Managing research data with reference management tools: A challenging research landscape. *Library Herald*, 2020, **58**(2-3), 131-150. doi: 10.5958/0976-2469.2020.00028.7
- 9. Ouchi, A.; Saberi, M.K.; Hashempour, L & Moghaddam, A.I. Do almetrics correlate with citations? A study based on the 1,000 most-cited articles. *Inf. Discovery and Delivery*, 2019, **47**(4), 192-202. doi: 10.1108/IDD-07-2019-0050.
- 10. Ovadia, S. The librarian's guide to academic research in the cloud, Chandos Publishing, Oxford, 2013, p. 33-58.
- 11. EndNoteOnline.https://clarivate.lib-guides.com/endnote_training/endnote_online (Accessed on 15 March, 2021).
- EndNote for i-Pad and i-Phone. http://clarivate.lib.guides. com/endnote_training/endnote_ipad_iphone (Accessed on 15 March, 2021).
- 13. EndNote support from Clarivate. https://support.clarivate.com/Endnote/s/article/EndNote-online-Quick-Reference-Guide?language=en US (Accessed on 15 March, 2021).
- 14. About-Zotero. http://www.zotero.org/about/ (Accessed on 17 March, 2021)
- 15. Zotero Support. https://www.zotero.org/support (Accessed on 19 March, 2021)
- Lonergan, N. Reference management software preferences among liberal arts faculty. *Ref. Serv. Rev.*, 2017, 45 (4), 584-595. doi: 10.1108/RSR-06-2017-0024.
- 17. Hensley, M.K. Citation management software features and futures, *Ref. User Serv. Q.*, 2011, **50**(3), 205-208. https://www.jstor.org/stable/41241164. (Accessed on 21 March, 2021).
- 18. RefWorks brochure. http://knowledge.exlibrisgroup.com/@api/dekilfiles/61774/RefWorks_brochure.pdf (Accessed on 20 March, 2021)
- Mendeley Guide. htts://www.mendeley.com/guide/ Mendeley_reference_manager (Accessed on 21 March, 2021)
- 20. Mendeley desktop guide. http://www.mendeley.com/guides/desktop (Accessed on 21 March, 2021)
- 21. Francese, E. Usage of reference management software at the university of torino. *JLIS*, 2013, 4(2), 145-174. doi: 10.4403/jlis.it-8679
- 22. Melles, A. & Unsworth, K. Examining the reference management practice of humanities and social science postgraduate students and academics. *Aust. Acad. Res. Libr.*, 2015, **46**(4), 249-274. doi: 10.1080/00048623.2015.1104790.
- 23. Rempel, H.G. & Mellinger, M. Bibliographic management tool adaption and use: A qualitative research study using the UTAUT model. *Ref. User Serv. Q.*, 2015, **54** (4), 43-53.
- 24. Emanuel, J. Users and citation management tools: Use and support, *Ref. Serv. Rev.*, 2013, **41**(4), 639-659.

- doi: 10.1108/RSR-02-2013-0007
- 25. Brody, S. Web-based tools for collaborative research. *Libr. Hi Tech News*, 2017, **34**(8), 8-19. doi: 10.1108/LHTN-08-2017-0062
- Talwar, M. Embedded librarianship: new horizons of librarianship. *DESIDOC J. Libr. Inf. Technol.*, 2014, 34(4), 461-466.
 doi: 10.14429/djlit.34.6.8043
- 27. Sarrafzadeh, M. & Hazeri, A. The familiarity and use of reference management software by LIS faculties of Iran. *New Libr. Word*, 2014, **115**(11/12), 558-570. doi: 10.1108/NLW-02-2014-0018.
- Sun, H.; Chen, K.; Tseng, C. & Tsai W. Role changing for librarians in the new information technology era, *New Libr. World*, 2011, **112**(78), 321-353. doi: 10.1108/03074801111150459.
- 29. Albitz, R.S. The what and who of information literacy and critical thinking in higher education. *Portal: Libr. Acad.*, 2007, 7(1), 97-109. doi: 10.1353/pla.2007.0000
- 30. Snavely, L. & Cooper, N. Competing agendas in higher education: Finding a place for information literacy. *Ref. User Serv. Q.*, 1997, **37**(1), 53-62.
- Onwuegbuzie, A.J.; Jiao, Q.G. & Bostick, S.L. Library anxiety: Theory, research and applications. The Scarecrow Press, Inc., Lanham, 2004.
- 32. Mashiyane, D.M. Librarians' utilisation of innovative information dissemination tools in reaching out to virtual users. *Libr. Hi Tech News*, 2021, **2**, 24-25. doi: 10.1108/LHTN-10-2020-0097.
- UGC (Minimum Standards and Procedure for Award of M.PHIL./PH.D Degrees) Regulations, 2016. Available from https://www.ugc.ac.in/pdfnews/4952604_UGC-(M. PHIL.-PH.D-DEGREES)-REGULATIONS,-2016.pdf. (Accessed on 8 April, 2021)
- Dawn, C. Citation tools in academic libraries: Best practices for reference and instruction. *Ref. User Serv. Q.*, 2011, 51(2), 53-62. https://www.proquest.com/scholarly-journals/citation-tools-academic-libraries-best-practices/docview/912813267/se-2?accountid=35054. (Accessed on 12 February, 2021).
- Hicks, A. & Sinkinson, C. Examining mendeley: Designing learning opportunities for digital scholarship. *Portal- Libr. Acad.*, 2015, 15(3) 532-549. doi: 10.1353/pla.2015.0035
- Ram, S. & Paul, J.A.K. The use of bibliographic management software by Indian library and information science professionals. *Ref. Serv. Rev.*, 2014, 42(3), 499-513.
 doi: 10.1108/RSR-08-2013-004
- 37. Baro, E.E.; Efe, B.U. & Oyeniran, G.K. Reference inquiries received through different channels: The challenges reference librarians face in university libraries in Nigeria. *Ref. Serv. Rev.*, 2014, **42**(3), 514-529. doi: 10.1108/RSR-09-2013-0049.
- 38. Habib, M. & Ibrahim, A.K. Promoting the use of library services: Challenges and prospects in some Ghanaian universities. *Libr. Philos. Pract. (e-journal)*, 4794. https://

- digitalcommons.unl.edu/libphilprac/4794 (Accessed on 15 August, 2021)
- 39. Grassian, E.S & Kaplowitz, J.R. Information literacy instruction: Theory and practice. Neal-Schuman Publishers, Inc., New York, 2009.
- 40. Marshall, C. Citation management software raises library profile. *J. Hospital Libr.*, 2020, **20**(2), 151-155. doi: 10.1080/15323269.2020.1738850.

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