

Awareness and Use of Open Access Resources by the Users of Selected Dental College Libraries in Bangalore, Karnataka: A Comparative Study

J. Shashidhara¹ and S. A. Sambathkumar²

¹Librarian & Research Scholar, Faculty of Dental Sciences,

M. S. Ramaiah University of Applied Sciences, Gnanagangothri Campus, Bangalore, Karnataka, India &
Department of Library and Information Science, Bharathidhasan University, Tamil Nadu, India

²Research Guide & College Librarian (S.G), S.K.S.S. Arts College, Tirupanandal, Tamil Nadu, India

E-Mail: jshashidhar2005@gmail.com, saskumar59@yahoo.in

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Abstract - In virtual, electronic, info-graphic and digital world, ICT revolutionary initiatives have made considerable changes in different sectors of society. In information aspect, open access resources or open archives are boosting students, researchers and faculties to search and retrieve relevant basic and specific information easily by breaking all commercial information barriers and also to make the information reach every corner of the world. Open access information is available easily with free access and has no geographical restrictions, languages, and communications. Therefore nowadays information seekers are more dependent on these resources and more authors are choosing open access resources to publish their research contributions in the forms of books, journals, conference papers, reports, working papers, presentations and other gray literature. Here researcher conduct study to examine the level of user awareness and understanding the various aspect of open access in two selected dental college library in Bangalore city.

Keywords: Open Access, Open Resources, Dental Colleges, Dental Libraries, Bangalore

I. INTRODUCTION

In earlier ICT revolutionary initiatives, the research contributors wanted to distribute their scientific or research outputs, but that was very much expensive. They would manage the submission, observe themes, edit/review the contributions and eventually it would be accepted or rejected or resending the same for further editing/modification to contributors. Publishers are always engaged with handling the typesetting, printing, and distribution of their research contributions. But an ICT revolution has brought a lot of changes in publication process in and around the world and all publications or resource materials have come in digital format and most of the journal publishers have reduced price for electronic resources and some of them are providing full/partial free access for all user communities without any royalty or personal benefits that's called "Open Movement".

Now most of the country's government or departments or NGO's are granting/spending lot of money regarding research and development to be brought in the digital library, digital archives initiatives on vision of preserve information resources of national heritage and other voluble local information and promote paperless and cashless

society and to make available information 'access is free to read and free to re-use it'. Based on that the Budapest Initiative, The Berlin Declaration on OA to Knowledge in the Sciences and Humanities, The International Federation of Library Associations and Institutions (IFLA), Publishing and Academic Resources Coalition (SPARC), Information Access Alliance (IAA), Association of College & Research Libraries (ACRL), International Consortium for the Advancement of Academic Publication (ICAAP), The Welcome Trust, Gutenberg project, Million book project, Association of Learned and Professional Society Publishers (ALPSP) etc., association or collaborative bodies take many more open access initiatives in international level.

India has also brought many open access initiatives to access digital information i.e., India's first cross-institutional thesis and dissertation repository Vidyanidhi was developed by the University of Mysore, Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium', Librarian's Digital Library (LDL) of Documentation Research and Training Centre (DRTC), Bangalore; OpenMed@NIC by National Informatics Centre, New Delhi, NCSI-IISc created a Cross Archive Search Service for Indian Repositories (CASSIR), Shodhganga, ShodhGangotri, Hrishikesh-Indian Agricultural Doctoral Dissertations, National Library-India, medIND, IndMED, Open J-Gate, Indian Academy of Sciences, Hosted Open Access Journals, Medknow. Other open access institutional repository database:ETD's, etd@IISc-Bangalore, etd@Indian Institute of Astrophysics (IIAP), Krishikosh: Indian Agricultural Doctoral Dissertations, Pondicherry University, Networked Digital Library of Theses and Dissertations (NDLTD), etd@IIT- Kanpur, DRS@nio (National Institute of Oceanography), DSpace@Thapar University(TU), National Metallurgical Laboratory, ethesis@NITR-Rourkela, Saurashtra University, Mahatma Gandhi University, etd@IIM-Bombay, University of Delhi, Delhi, Madurai Kamaraj University, Madurai, University of Kashmir, Srinagar, Mahatma Gandhi University, University of Hyderabad, Hyderabad, Indira Gandhi National Open University (eGyankosh), Delhi, Rajiv Gandhi University of Health Sciences (RGUHS), Bangalore etc., initiatives were designed and implemented to support and promote barrier-free access to all kind of research access and believes open

access of research outputs can reach easily to the various user communities.

II. LITERATURE REVIEW

A literature review is essential, primarily to identify the work in a subject selected for investigation. The selected Indian and Foreign periodicals in the field of Library and Information Science has been reviewed and consulted.

Hegde, Pradeep V (2017) studied on social scientists approach to open access initiatives in India. The study findings show that, 67% of the respondents are aware of open access resources available in social science research arena, but are not very keen on publishing their research work in open access journals. Over 55% of the respondents have responded positively to citation of open access resources in their research publications. Visibility and free access are found to be the major advantages associated with open access journals, while expensive author publishing charge is the foremost hurdle to publishing articles in open access journals. Researcher suggested that OA publishers need to be more vibrant about maintaining the quality of research articles in addition to enlightening on the role of librarians in promoting the use of open access resources.

Bala, Suniti & et al., (2018) study explores use of open access resources (OARs) by researchers of Punjab Agricultural University, Ludhiana. The findings of the study shows that research articles, thesis and e-books extensively use open access resources for course and research work. Training and online tutorials can be helpful in overcoming the problems faced by researchers in using OARs. OARs are widely used for course work and research work (39.76%).

About 34.94% use open access resources to update their knowledge and Manchu, O & Vasudevan, T.M (2018) examined institutional repositories and open access publishing awareness among the researchers in university of Calicut. Major findings of the study was that majority of researchers are aware of the concept of institutional repositories and open access publishing. The major motivating factors of researchers for using institutional repositories and open access publishing were improvement of their scholarly communication. The discouraging factors for researchers not to deposit their work in it was that majority of them were not aware of how they can deposit their work in it and a good number of them thought that repository would have low prestige. Researcher suggested that library should provide appropriate awareness program and training to researchers about the benefits of using institutional repositories and open access publishing and should encourage them to deposit their work in it.

Kurian, Binoy & Nagarajan, M (2018) study was done on utilization of open access resources among research scholars of Annamalai University. The study focuses on awareness and use of open access resources, time spent purpose and

satisfaction level. The most prominent sources are e-journals, access resources 94.59% and 40.80% of the research scholars spent electronic theses and dissertations, e-books, 94.59% of the respondents made use of about 11-15 hours a month, 50.86% of the respondents were used open access resources for research purpose. 74.43% of the research scholars opined moderate level satisfied, and lack of speed was the major constraint faced by the respondents and other study carried out by Anunobi, Chinwe & Ape, Rebecca (2018) determined the promotional strategies adopted by Nigerian university libraries to enhance open access resources discovery and access, as well as their support and perception on use of the resources. The results were presented the Nigerian universities are supporting the green and gold models of open access initiatives, though emphasis is more on the green model-the institutional repository majority of which were yet to be listed in the Open DOAR. There was perceived high use of open access resources by faculty members in spite of very few who could not use the resources due to unawareness, lack of skill and institutional reservations on open access resources quality. Nigerian universities have made incursions into the support of OAR especially the green model in which discovery and access are promoted through advocacy, infrastructural development and survey initiatives. Librarians and continuing professional development stakeholders could deploy the results to assess their status in OAR support and promotion.

Moll-Willard, Elizabeth (2018) conducted the study on perception of legal academics around the visibility of their resources reflects their publishing practices. It is seen that although academics at UCT publish mostly in closed journals, the publishing in open and hybrid journals has slowly increased during the period 2011-2015. Further it is evidenced that legal academics are exploring other avenues, including that of self-archiving, to boost the visibility of their work and one more similarity study conducted by Emily Nunn (2018) study was to conduct on medical charities' perceptions of open access to scholarly research. Preliminary results are presented, including the expertise and insider knowledge which medical charity staff use to get access to pay walled research, the values and risks (to different social groups) perceived in making research open access, and the different discursive constructions of the 'non-academic' user who wishes to access research. The study contributes to a small, but growing body of research exploring the potential value of open access outside academia. Also the Muthu vennila, S & Tanuskodi, S (2018) study made an attempt to examine the awareness of open access resources used in the library and Information Science PG students in Alagappa University. This study shows that majority of the student's impact of the open access resources in that 16 (41%) of the frequency are male while 23(59%) are female in the use of open access resources in distance education students in Alagappa University , also show that 39(100%) respondents are Awareness of open access resources available from the library and maximum learning of open access resources 16(41%) respondents

information access in the home, followed by library 11(28.2%), that the maximum Level of satisfaction of open access resources 25(64.10%) respondents information access in Satisfied, that the 17 (43.58%) use for the open access resources in 1 to 3 years.

III. OBJECTIVES OF THE STUDY

The present study confined the awareness and use of various open access dental resources by the user of selected dental college libraries users.

IV. METHODOLOGY

In this study primary data was collected through a structured questionnaire used to examine the user’s perception about open access resources, applications and implications in selected dental college library users i.e., Faculty of Dental Sciences, Ramaiah University of Applied Sciences, Bangalore (FDS-MSRUAS), Bangalore and KLE Dental College(KLE-DC), Bangalore.

V. SCOPE AND LIMITATIONS OF THE STUDY

The limitation of the present study is that it contains only 2 selected dental libraries out of 15 dental collage libraries in Bangalore. The present study focuses on examining the awareness and use of open access resources by users of selected dental college libraries in Bangalore i.e., FDS-MSRUAS: Faculty of Dental Sciences, Ramaiah University of Applied Sciences and KLE-DC: KLE Dental College, Bangalore.

VI. ANALYSIS AND FINDINGS OF THE STUDY

A structured questionnaire was used and distributed to examine the awareness and use of open access dental resources and services by users of selected dental college’s library users in Bangalore city. The collected data was coded before entering into the MS excel sheet, later the data was transferred to PSPP software package for analysis and interpretation of data.

TABLE I DISTRIBUTION OF QUESTIONNAIRES

Selected Colleges	Distributed			Received		Total
	Faculties	PG students	Total	Faculties	PG students	
FDS-MSRUAS	40	40	80	36	39	75
KLE-DC	40	40	80	38	35	73
Total	80	80	160	74	74	148

1. *FDS-MSRUAS*: Faculty of Dental Sciences, M S Ramaiah University of Applied Sciences, Bangalore
2. *KLE-DC*: KLE Dental College, Bangalore

library users i.e., total 160 questionnaires were distributed for faculty members and PG students of FDS-MSRUAS and KLE-DC library users and same 148(90%) questionnaires were received, analyzed and presented in following tables.

Table I show that the equal distributions of structure questionnaires to selected FDS-MSRUAS and KLE-DC

TABLE II AWARENESS ABOUT OA

Y/N	Colleges	(Freq-148)			
		Faculty members	Total	PG students	Total
Yes	FDS-MSRUAS	35 (23.64%)	70 (47.29%)	35(23.64%)	70 (47.29%)
	KLE-DC	35 (23.64%)		35(23.64%)	
No	FDS-MSRUAS	1 (0.67%)	4 (2.70%)	4(2.70%)	4 (2.70%)
	KLE-DC	3 (2.02%)		0(0.00%)	
Total		74 (49.99%)	74 (49.99%)	74(49.99%)	74 (49.99%)

Above table II demonstrated the awareness of faculty and PG students on open access sources available in their respective disciplines. About 70(47.29%) faculty members and 70 (47.29%) PG student respondents are aware and use various available open access dental resources.

Only around 8 (5.40%) faculty members and PG student respondents are not aware about open access resources; therefore further analysis will be consisting only for 140respondents.

TABLE III OPINION ABOUT PRINCIPLES OF OA

Opinion	(Freq-140)		%
	FM	PGS	
Strongly in favor	33(23.57%)	39(27.85%)	72(51.42%)
Mildly in favor	32(22.85)	18(12.85%)	50(35.71%)
Mildly against	0(0.00%)	9(6.42%)	9(6.42%)
Strongly against	4(2.85%)	1(0.71%)	5(3.57%)
Don’t know	1(0.71%)	3(2.14%)	4(2.85%)
Total	70(49.99%)	70(49.99%)	140(99.99%)

Table III examined that opinion of faculty and PG students about the principles of Open access. It clearly noted that 72(51.42%) and 50(35.71%) faculty members and PG

students respectively are strongly in favor and Mildly in favor with the principles of Open access.

TABLE IV WILLINGNESS TO PUBLISH RESEARCH CONTRIBUTIONS IN OA JOURNALS

Opinion	(Freq-140)		%
	FM	PGS	
Yes	15(10.71%)	40 (28.57%)	55 (39.28%)
No	20(14.28%)	8 (5.71%)	28 (20.20%)
I do not consider that as a criterion	35(25.00%)	22 (15.71%)	57 (40.71%)
Total	70(49.99%)	70 (49.99%)	140 (99.99%)

Table IV shows that the respondent's willingness and interest to publish their research contributions in Open access journals or open archives databases. It clearly noted that highest 57(40.71%) faculty and PG students were felt that, due to lack of knowledge about open system, so far they were not willing to publish their research contributions in Open access OA journals and also 55(39.28%) respondents agree with that they are willing to publish their research contributions in OA journals.

60(42.85%) of faculty members and PG students know very well and something about the open digital archives and few more 16(11.42%) faculty members and PG Students are not aware about any open digital archives.

TABLE V AWARENESS ABOUT OA ARCHIVES

Opinion	(Freq-140)		%
	FM	PGS	
I know it well	50(35.71%)	14(10.00%)	64(45.71%)
I know something about it	19(13.57%)	41(29.28%)	60(42.85%)
I don't know	1(0.71%)	15(10.71%)	16(11.42%)
Total	70(49.99%)	70(49.99%)	140(99.99%)

Further, table V revealed that the user's opinion about awareness and use of open digital archives, to contribute and access scholarly contents. About 64(45.71%) and

TABLE VI USE OF OA ARCHIVES

Opinion	(Freq-140)		%
	FM	PGS	
Strongly in favor	41(29.28%)	38(27.14%)	79(56.42%)
Mildly in favor	18(12.85%)	21(15.00%)	39(27.85%)
Mildly against	8(5.71%)	7(5.00%)	15(10.71%)
Strongly against	2(1.42%)	2(1.42%)	4(2.85%)
Don't know	1(0.71%)	2(1.42%)	3(2.14%)
Total	70(50.00%)	70(50.00%)	140(100.0%)

This also study fund, users attitude towards use and publish their research contributions through institutional repository or other open archives. Table VI examined 79(56.42%) faculty members and PG students respectively are in favor with usage of open access repositories and 39(27.85%) of them are mildly in favor about open access repositories.

TABLE VII QUALITY OF OA CONTRIBUTIONS

Y/N	Colleges	(Freq-140)			
		Faculty members	Total	PG students	Total
Yes	FDS-MSRUAS	27(19.28%)	49 (35.00%)	21(15.00%)	40 (28.57%)
	KLE-DC	22(15.71%)		19(13.57%)	
No	FDS-MSRUAS	8(5.71%)	21 (15.00%)	14(10.00%)	30 (21.42%)
	KLE-DC	13(9.28%)		16(11.42%)	
Total		70(49.99%)	70(50.0%)	70(49.99%)	70(50.0%)

Table VII indicate that the user opinions about quality of OA research contributions published in open access mode, but interestingly 49(35.00%) and 40(28.57%) of FDS-MSRUAS and KLE-DC colleges faculty members and PG students felt that open access articles provide good quality of contents and everybody can access all contributions in and across any corner of the world and in the other hand 15.0% and 21.42% respondents felt that open access article don't provide quality research contents.

Interestingly the study found interest in research contributors in order to contribute their contributions to open access journals. Table VIII revealed that highest 35(25.00%) respondents felt that they are not sure if it's permitted according to the publishing contract, 34(24.28%) of them don't have the permission from the other authors and 27(19.28%) of respondents don't know how to do it with open access journals.

TABLE VIII ISSUES IMPACTS AUTHORS NOT INTEREST PUBLISHING IN OA JOURNALS

Opinion	(Freq-140)		%
	FM	PGS	
I don't know how to do it	12(8.57%)	15(10.71%)	27(19.28%)
I'm not sure if it's permitted according to the publishing contract	22(15.71%)	13(9.28%)	35(25.00%)
I don't have the permission from the other authors	9(6.42%)	25(17.85%)	34(24.28%)
It's too much trouble	15(10.71%)	9(6.42%)	24(17.14%)
I don't want to put my publications in	12(8.57%)	8(5.71%)	20(14.28%)
Total	70(49.99%)	70(49.99%)	140(99.99%)

TABLE IX AWARENESS DIGITAL ARCHIVES APPLICATIONS

Opinion	(Freq-140)		%
	FDS-MSRUAS	KLE-DC	
Yes	19(13.57%)	26(18.57%)	45(32.14%)
No	51(36.42%)	44(31.42%)	95(67.85%)
Total	70(49.99%)	70(49.99%)	140(99.99%)

Table IX summarized user awareness about digital archives applications designed to publish, preserve and access open access applications i.e., PhysicsarXiv repository, a personal website, or other free text and subject based repositories. Most of 95(67.85%) FDS-MSRUAS and KLE-DC college's respondents are not aware about available digital archives applications.

TABLE X AWARENESS OF UPLOADING PUBLICATION

Opinion	(Freq-140)		%
	FM	PGS	
Subject-based repository	63 (45.00%)	58(41.42%)	121(86.42%)
Personal website	6(4.28%)	12(8.57%)	18(12.85%)
Other channel	1(0.71%)	0(0.00%)	1(0.71%)
Total	70(50.00%)	70(50.00%)	140(100.00%)

Table X explores user's awareness, skills about contents uploaded to OA archives. Most of 121(86.42%) respondents are interested to contribute their contributions in Subject-based repository.

TABLE XI USER AWARENESS ABOUT COPYRIGHT POLICY

Opinion	(Freq-140)		%
	FM	PGS	
Yes	48(34.28%)	29(20.71%)	77(55.00%)
No	22(15.71%)	41(28.29%)	63(45.00%)
Total	70(50.00%)	70(50.00%)	140(100.00%)

Further table XI find that the awareness of copyright policy while signing before submitting an article to a journal. It clearly notes that 77(55.00%) of faculty members and PG students are aware about copyright polices and guidelines in

submission of their research contributions and while others are not aware of the above.

TABLE XII USER OPINION ABOUT OWNERSHIP COPYRIGHT

Opinion	(Freq-140)		%
	FM	PGS	
Author/s	42(30.00%)	50(35.71%)	92(65.71%)
Employing institution	17(12.14%)	12(8.57%)	29(20.71%)
Primary funder	1(0.71%)	0(0.00%)	1(0.71%)
Publisher	8(5.71%)	2(1.42%)	10(7.40%)
I don't know	2(1.42%)	6(4.28%)	8(5.71%)
Total	70(50.00%)	70(50.00%)	140(100.00%)

Table XII shows that the user's opinions about owning the copyright of research publications. It clearly notes that the highest 92(65.71%) of faculty members and PG students respectively choose authors own copyright is a better option to hold right on their research contributions, however 29(20.71%) of above said suggest publisher to Employing institution and remaining are insignificant.

VII. CONCLUSION

Open access resources is an emerging tool for many libraries and information centers, this is because many libraries are not able to offer high paid subscription to scholarly publications published by prominent publishers of the world. The open access is a mantra of the 21st century, really a boon for the college libraries to co-up with the budget constraints especially under developed and developing countries including India context. In this article the authors identified several Open Access scholarly literature, most prominently, 'open access journals', directories, subject gateways and 'self-archiving' resources and services available in both private and public domain. The Open Access landmark success of much new open access initiative in India and other developing countries speak for this. Since most of the scholar societies interested in experimenting with Open access resources are aware of the intricacies of this domain, a support organization comprising of Open Access publishers is the need of the day.

The study found that majority know open access as free to access but the awareness on the funding agencies, OA journals, licensing, its authenticity is not known. Majority want to experience by publishing the article to believe it. But most of users are still not aware about various open access initiatives; hence library professionals need to create user awareness about various open access initiative resources and its services.

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