
**AWARENESS AND USAGE OF E-JOURNALS AND E-BOOKS BY THE
STUDENTS AND RESEARCH SCHOLARS OF THE UNIVERSITY
OF MYSORE: A STUDY**

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Abstract :

The advancement in information technology and its application to scholarly communication has changed the reading habits of all stake holders concerned. E- Journals and e- books are most popular types of e-resources used by academic and R&D workers all over the world. The Mysore University Library provides access to thousands of e-journals and few important bibliographic databases as a member of UGC-Infonet Consortia and also few titles through its own subscription. About 18,000 E-books from well-known publishers like Springer, Wiley, CRC Press and Taylor and Francis have been made available for the benefit of patrons. The present study deals with the awareness and usage of e-books and e-journals by research scholars and students of University of Mysore from the point of view of their purpose use, frequency, search techniques of searching and accessing e-books and e-journals

KEYWORDS :

E-Journals, E-books, Usage, Students and Research Scholars, University of Mysore .

INTRODUCTION

Over the last several years, e-Books and e-Journals have gained acceptance rapidly among not only academic and research community, but even the general public. It is estimated that more than 40,000 e-journals and lacs of e-books are being published both by commercial, professional societies and open access advocates. About 40% of e-journals are available through open access channels. The Directory of Open Access Journals gives access to more than 9,900 e-journals with about 5000 titles searchable article level. The J-gate Plus covers >35,000 e-journals, out of which > 18000 titles are open access including > 12000 scholarly journals. The Internet Archive, American Libraries, Canadian Libraries, Gutenberg Project, Directory of Open Access Books, University of California Open Access Books, Universal Digital Library and many more initiatives have made available lacs of e-books available free through Internet. While most of the books made available through these sources are old and copyright free books, a good number of recently published books too are available through open access. Libraries attached to universities and research institutions have made available these two types of e-resources available for the benefit of their users. Thanks to the consortia initiatives in the country, good number of universities and research institutions provide access to thousands of e-journals published by many commercial and society publishers. The UGC-INFLIBNET has made available about 7000 full text e-journals of well-known publishers and few bibliographic databases. The N-LIST (National Library and Information Services infrastructure for Scholarly Content), an initiative of Ministry of Human Resource Development (MHRD) under the National Mission on Education through ICT, has made available about 6000 e-journals and 97,000+ e-books for the benefit of degree colleges, both aided and un-aided colleges. Somehow these resources are not available for the benefit of Universities. But some of the universities have taken the initiative of subscribing to additional e-resources including e-journals and e-books. Crores of rupees are spent by Government to make these resources with sole aim of improving the quality of education and research in the country. This being the case the responsibility of providing the necessary ICT infrastructure rests with the managements of individual organizations to facilitate searching and accessing the e-resources. The Library and Information Service professionals working various academic, research and development institutions have a major role to play in boosting the usage of e-resources by providing single access point like their website and more importantly by conducting orientation programs.

UNIVERSITY OF MYSORE:

The University of Mysore (UoM) was established in the year 1916 during the benevolent reign of the Maharaja of Mysore, His Highness Nalvadi Krishnaraja Wodeyar. Sir M Visvesvarayya played a decisive role in the launch of the University. The mission of the University aims at 'promoting teaching and research in conventional and traditional domains of Arts, Humanities, Pure and Applied Sciences and Professional disciplines'. The conglomeration of all the post-graduate studies of the University at one location, during the tenure of the Vice-Chancellorship of Dr. K.V. Puttappa is a major development. The University has 42 Postgraduate Departments at the Main Campus, Manasagangotri and 3 Postgraduate Centres at Mandya, Hassan and Chamarajanagar. The University has excellent infrastructure for supporting its curricular and co-curricular activities. The IT infrastructure with high bandwidth Internet along with WiFi connectivity in all its campuses and institutes developed in the recent years is comparable to those of IITs in the country. In the recent years the university has the distinction getting recognized as Institute of Potential Excellence with 100 crore UGC aid and University of Potential Excellence with another 50 crores aid, apart from many other recognitions from DST, DSIR, etc. The varsity underwent NAAC reaccreditation recently and got 'A' grade with CGPA rating of 3.47 putting its rank as 1st among universities in Karnataka, 4th among all state universities and 12th among all types of universities in the country.

MYSORE UNIVERSITY LIBRARY:

The PG Library of UoM in Manasagangotri has a collection of 6.2 lakhs covering books, reference works and journal back volumes. In addition, all constituent colleges, special institutions, PG centres and most of the departments have their own libraries. The main library houses a Digital Information Resource Centre (DIRC), Career Information Resource Centre (CIRC) and state-of-the-art Learning Resource Centre for Visually and Physically Challenged. The DIRC attracts about 600 students and research scholars everyday on an average. The computer systems available in the DIRC are being increased to about 350 from the existing 120 very soon.

E-RESOURCES AT UOM:

More than 7000 full text e-journals facilitated through UGC INFLIBNET published by many commercial and society publishers like Elsevier, Springer, Wiley-Blackwell, Taylor and Francis, Cambridge University Press, Oxford University Press, American Chemical Society, Royal Society of Chemistry, Annual Reviews, American Institute of Physics, American Physical Society, etc have been made available to patrons of Mysore University Library. About 10 bibliographic and citation databases, including Web of Science, MathSciNet, and JCCC@UGC-INFONET, etc facilitate searching literature across journals published by different publishers. All e-resources have been made accessible to the genuine users viz. students, research scholars and faculty members of UoM through campus wide access including WiFi connectivity in all campuses of UoM. Remote access to e-resources has been enabled through OCLC's Ezproxy. This enables the users to access e-resources from their hostels, residences and even when they are on tour elsewhere. About 18,000 e-books of commercial publishers like Springer, Wiley, T & F and CRC-Netbase have been made available on perpetual access basis. More importantly a common search facility has been provided through Library WebOPAC to search across the e-books of different publishers through a single search by selecting the document type e-books. Probably UoM OPAC has a distinction having extended this facility in the country. While anybody can go up to contents page of e-books from anywhere, one can access the full texts only within the campus. This is in addition to the access of e-books using the respective platforms of e-book suppliers. The e-resources Portal (Figure -1.) developed by library facilitates single point access to both subscribed content and thousands of journals, books, thesis, etc available in open access channels. Some of the important e-resources made available through this portal include Directory of Open Access Journals(DOAR), PubMed, ERIC, Internet Archive, Universal Digital Library, National Digital Library of theses and Dissertation, Shodhaganga, Directory of Open Access Repositories(DOAR), a number of Institutional repositories and harvesters like RePEC, Social Science Research Network, BASE - Bielefeld Academic Search Engine, OaiSter and few important sources of Academic Courseware like that of MIT. As on 7th Sept 2013 DOAJ lists 9950 e-journals published in 121 countries out of which it facilitates 5612 journals at article level searching with total number of articles being 1521106. BASE has harvested about 50 million articles archived in more than 2600 institutional repositories in the world.

Figure – 1: E-Resources Portal of UoM

MYSORE UNIVERSITY LIBRARY: E-RESOURCES			
DATABASES/ JOURNAL GATEWAYS/ PORTALS			
BROWSE AND SEARCH E-RESOURCES(UGC-INFONET)	J.GatePlus	UoM Library Catalogue Web OPAC	JCCC@UGC-INFONET
Web of Science	SciFinder	MathSciNet	OAIster Google Scholar
LICENSED for UoM Patrons		OPEN ACCESS	
All E-Books Via UoM OPAC Through Publishers Sites: CRC Press E Books (3148 Titles) Springer E Books(8025 Titles) Taylor and Francis E Books (3924 Titles) Wiley Books Online (1861 Titles)		Directory of Open Access Books American Libraries (>1,651,000 Books) Google Books Canadian Libraries (>318,000 Books) Project Gutenberg (>33000 Books) Universal Digital Lib. (Million Books Project) Community Books (>94,000 Books)	
LICENSED		OPEN ACCESS	
American Chemical Society (34 Titles) American Institute of Physics (18 Titles) American Physical Society (10 Titles) Annual Reviews (33 Titles) Blackwell Publishing (908 Titles) Cambridge University Press (224 Titles) Economic & Political Weekly (1 Title) Elsevier Science (1036 Titles) Emerald (29 Titles) Institute of Physics (46 Titles)		Bentham Science Publishers (250 titles) BioLine International BioMed Central (STM) HighWire Press Hindawi Publishing Corporation (>200 titles) Indian Academy of Sciences (IAS) Indian Journals Journal of Digital Information (JoDI) Journal of Postgraduate Medicine	
E-BOOKS			
E-JOURNALS			

Extensive orientation programs have been conducted at each of the department and constituent colleges. The usage statistics of INFLIBNET facilitated e-resources has seen a phenomenal increase for the last 3 years. Its rank in terms of downloads, which was 46th in 2009 among all universities in the country rose drastically to 15th rank in 2012 and account for 36% of downloads by all eight universities in Karnataka.

ACCESS AND USAGE OF E-JOURNALS AND E-BOOKS – A STUDY:

Objectives:

1. To know the awareness of e-resources particularly the e-books and e-journals by students and research scholars of UoM.
2. To know the purposes of using e-books and e-journals.
3. To know the frequency of usage of e-books and e-journals by them.
4. To know the preferred search methods used by students and research scholars.
5. To find out the problems faced by them while accessing e-books and e-journals.
6. To know their awareness of about copyright issues associated with e-books and e-journals.

Methodology

Since the study is related to the users and their use of e-books and e-journals a questionnaire was formed to conduct a survey. Overall 200 questionnaires were distributed randomly among research scholars and students, of which investigators received 180 filled in ones and the same were used for the analysis.

Analysis of Data

Table-1: Awareness of e-Journals and e-Books

Sl No	Awareness of the e-Journals and e-Books	Number of respondents(n=180)	
		Research Scholars (n=36)	Students (n=144)
1	Yes	27(75%)	121 (84.03%)
2	No	9(25%)	23(15.97%)
	Total	36(100%)	144(100%)

Table-1 depicts responses of the students and research scholars of Mysore University Postgraduate Campus regarding the awareness of e-journals and e-books. It is clear from the table that 27 research scholars representing 75% and 121 students representing 84.03% have expressed that they are aware of e-books and e-journals available on the website. Here, the e-resources include open access and subscription based books and journals. Further, it can also be inferred from the table that 9 research scholars representing 25% and 23 students representing 15.97% have stated that they are not fully aware of e-books and e-journals available on the web. Therefore, it can be inferred that a large majority of users including students and research scholars are aware of e-books and e-journals. The percentage of users who are aware of e-resources is in the range of 75% to 85%

Table-2: Frequency of use e-Journals and e-Books

SI No	Frequency of usage e-Journals and e-Books	Number of respondents	
		Research Scholars (n=36)	Students (n=144)
1	Daily	21(58.33%)	109(75.69%)
2	Twice a week	7(19.44%)	21(14.58%)
3	Weekly	5(13.89%)	9(6.25%)
4	Rarely	3(8.34%)	5(3.47%)

Table-2 projects the frequency of use of e-books and e-journals. The table indicates that 21 research scholars representing 58.33% and 107 students representing 75.69% have stated that they rely upon e-resources on daily basis. Further, regarding the frequency of use, 7 research scholars and 21 students representing 19.44% and 14.58% respectively access e-resources available on the web twice weekly. A small segment of 3 research scholars and 5 students representing 8.34% and 3.47% respectively use e-resources rarely. From this it is clear that a large percentage of users among research scholars and students frequently use e-books and e-journals.

Table-3: Importance of e-Journals and e-Books

SI No	Opinion of the users	Number of respondents	
		Research Scholars (n=36)	Students (n=144)
1	Important	28 (77.78%)	116(80.56%)
2	Not Important	8(22.22%)	28(19.46%)
Total		36(100%)	144(100%)

Table-3 shows the importance of e-books and e-journals for academic and research programmes. 21 research scholars representing 77.78% and 116 students representing 80.56% hold the view the e-books and e-journals play an important role for academic and research purposes. A small number of research scholars representing 22.22% and among students 19.46% opine that the e-books and e-journals are not so important for their academic and research tasks. Therefore it can be inferred that a large percentage of users in the range of 77.78% to 80.56% feel that e-resources are important for them.

Table-4: Reasons for preferring e-Journals and e-Books

SI No.	Reasons for preferring e-Journals and e-Books	Number of respondents (180)		Total
		Research scholars N=36	Students N=144	
1	Up to date information	22(61.11%)	126(87.5%)	148(82.22%)
3	Easy to search	29(80.55%)	135(93.75%)	164(91.11%)
3	Readymade source of information	26(81.25%)	118(81.94%)	144(80%)
4	Accuracy of information	18(50%)	106(73.61%)	124(68.89%)
5	Free access to information	24(66.67%)	114(79.17%)	146(81.11%)

Table-4 furnishes various reasons for preferring e-journals and e-books. Many reasons have been quoted by the respondents. The reason of easy to search and access information on the web is the main preferred reason to rely upon e-resources. 29 research scholars representing 80.55% 135 students representing 93.75% have quoted that the reason of easy to search and access. Another segment of users representing 81.25% of research scholars and 81.94% of students have expressed that information available on the web particularly e-books and e-journals are the sources which are readily available. Further, 66.67% of research scholars and 79.17% of students have quoted the reason for preferring e-resources as they are available free of cost on the web. 61.11% of the research scholars 87.5% of students have opined that information available on the web is current and up to date. Finally 55% of research scholars and 73.61% of students feel that the e-resources available on the web is reliable and accurate. A large segment of respondents have opted for "easy to search" reason

which accounts for 91.11%.

Table-5: Purpose of using e-Journals and e-Books

Sl No.	Purpose to use e-Journals and e-Books	Number of respondents		Total
		Research scholars (n=36)	Students (n=144)	
1	Literature searching in subject specialized	28(77.78%)	54(37.50%)	82(45.55%)
2	Research and development activities	32(88.89%)	61(42.36%)	93(51.66%)
3	Preparation for Projects /Seminars	24(66.67%)	128(88.89%)	152(84.84%)
4	To know Ongoing Research	32(88.89%)	76(52.77%)	108(60.00%)

Table 5 represents the different purposes amongst research scholars and students in using e-books and e-journals. It can be inferred that 24 research scholars representing 66.67% and 128 students representing 88.89% expressed the purpose of preparing of projects/seminars. 88.89% research scholars and 52.77% students expressed the purpose of knowing ongoing research. 32 research scholars and 61 students representing 88.89% and 42.36% respectively are using e-books and e-journals for their research and development activities. 28 research scholars and 54 students representing 77.78% and 37.50% respectively quoted the purpose of literature search in the subjects specialized. Finally it can be inferred from the table that a large number of users including research scholars and students rely up on e-books and e-journals to prepare seminars, project reports and dissertations.

Table-6: Common Search Techniques used to Access e-Journals and e-Books

Sl No.	Common Search Techniques	Number of respondents		Total
		Research scholars(n=36)	Students (n=144)	
1	Title	28(77.78%)	121(84.03%)	149(82.78%)
2	Journal Title	24(66.67%)	112(77.78%)	136(75.56%)
3	Wild cards	2(5.56%)	9(6.25%)	11(6.11%)
4	Selectable Truncation	2(5.56%)	7(4.86%)	9(5%)
5	Boolean operators	21(58.33%)	76(52.78%)	97(53.89%)
6	Proximity Functions	0(0%)	2(1.38%)	2(1.11%)
7	Simple search in fields	26(72.22%)	118(81.94%)	144(80%)

Table 6 depicts the various search techniques used to access e-books and e-journals. 28 research scholars representing 77.78% and 121students representing 84.03% expressed that they search e-books and e journals by title. 26 research scholars representing 72.22% and 118 students representing 81.94% have expressed that they search e-books and e journals in simple search field. 24 research scholars and 112 students representing 66.67% and 77.78% respectively stated that they search e-books and e journals on journal's website. 21 research scholars and 76 students representing 58.33% 52.78% respectively stated that they use Boolean operators. Further regarding techniques used to search e-books and e-journals, 5.56% research scholars and 6.25% students are using wild cards. Finally a small segment of users including students use proximity functions to search e-books and e-journals. Thus it can be inferred that in the range of 77.78% to 84.03% users covering research scholars and students access e-books and e-journals by title.

Table-7: Guidance Received to Access e-Journals and e-Books

Sl no.	Types	Number of respondents	
		Research scholars(n=36)	Students(n=144)
1	Guidance from friends	8(22.22%)	46(31.94%)
3	Library staff and orientation class	18(50%)	76(52.78%)
3	Faculty	6(16.67%)	14(9.72%)
4	Trial and Error	4(11.11%)	8(5.56%)
Total		36(100%)	144(100%)

Table-7 depicts the various responses received from research scholars and students for accessing e-journals and e-

books. Library staff has to be appreciated because more than 50 % of respondents have expressed that they have received guidance from the library staff regarding access to e-books and e-journals. It can be inferred from the table that 18 research scholars representing 50% and 76 students representing 52.78% have expressed that they have received guidance from library staff and orientation class conducted by the library. 8 research scholars representing 22.22% and 46 students representing 31.94% are of the opinion of taking guidance from friends. 6 research scholars representing 16.67% and 14 students representing 9.72% have expressed that they have received guidance from their faculty. Finally a small segment of users including research scholars and students representing 11.11% and 5.56 % respectively learnt accessing e-books and e-journals by self reliance.

Table-8: User Awareness about Copyright Associated with e-Journals and

SI No	Opinion of the users	Number of respondents	
		Research Scholars (n=36)	Students (n=144)
1	Aware	24(66.67%)	86(59.72%)
2	Not aware	12(33.33%)	58(40.28%)

Table-8 depicts the awareness of copyright associated with e-journals and e-books. It is clear from the table that 24 research scholars representing 66.67% and 86 students representing 59.72% have expressed that they are aware of copyright associated with e-journals and e-books. Further it can also be inferred from the table that 12 research scholars representing 33.33% and 58 students representing 40.28% have stated that they are not fully aware of copyright associated with e-journals and e-books. Therefore it can be inferred that a large majority of the users including research scholars and students are aware of copyright associated with e-journals and e-books. The percentage of users who are aware of copyright associated with e-journals and e-books is in the range of 59.72% to 66.67%.

Table-9: Problems Faced by Respondents while Accessing e-Journals and e-Books

SI No	Problems	Number of respondents		Total
		Research Scholars (n=36)	Students (n=144)	
1	In-sufficient e-books and e-journals	26(72.22%)	102(70.83%)	128(71.11%)
2	Advanced searching techniques	34(94.44%)	138(95.83%)	172(95.56%)
3	Lack of knowledge	18(12.5%)	96(66.67%)	114(63.33%)
4	Non availability of subscribed resources	4(11.11%)	13(9.03%)	30(9.44%)

Table-9 furnishes the various problems faced by students and research scholars while using e-journals and e-books. The problem of advanced search technique is the major problem faced while accessing e-books and e-journals. 34 research scholars representing 94.44% and 138 students representing 95.38% have quoted the problem of advanced search technique. Another segment of users representing 72.22% of research scholars and 70.83% of students stated the problem of inadequate e-books and e-journals. Further, 12.5% of research scholars and 66.67% of students have quoted the problem of lack of knowledge to access e-books and e-journals. Finally 11.11% of research scholars and 9.03% of students stated the problem of non availability of purchased/subscribed resources on the web. It can be inferred that a large number of users including research scholars and students facing the problem in the advanced search technique while accessing e-books and e-journals available on the web.

FINDINGS

Majority of the research scholars representing 75% and students representing 84.3% are using e-journals and e-books. 77.78 % of the research scholars and 80.56 % students are of the opinion that e-journals and e-books are important for their academic and research endeavor. A large majority representing 95.56% of total respondents face the common problem in advanced search techniques.

RECOMMENDATIONS

More of e-resources, covering e-books and e-journals have to be subscribed or purchased as a large number of students and research scholars of the University of Mysore rely upon e-books and e-journals. E-resources covering the disciplines of humanities and social science have to be purchased/ subscribed to facilitate access to current and useful resources.

Orientation and training courses have to be conducted periodically. This will help to a small segment of students and research scholars who are not thorough or familiar in accessing these sources available on the web.

The users have to be made known about the copyright and licensing issues prevailing as of today. The orientation programme has to cover these aspects as well. Further, the general rules and regulations governing the copyright issues and responsibilities have to be given on the library website under instruction for access.

CONCLUSIONS:

An electronic resource has become popular among the information users at higher education level. Publishers have come out with electronic version of books and journals in large number day by day users are becoming familiar in accessing e-books and e-journals on the web. They have also started placing demand on the library for subscription to e-journals and e-books. Of late, many libraries have purchased e-books and subscribed to e-journals under consortia approach. This trend of resource sharing will increase in future. Even e-resources are provided at large under open access platform. Hence it can be concluded that library users in the higher education institutions are aware of the availability of the e-resources and also familiar in accessing them for their academic and research endeavour.

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