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**KNOWLEDGE AND USE OF ELECTRONIC  
RESOURCES BY FACULTY MEMBERS OF  
KURUKSHETRA UNIVERSITY KURUKSHETRA  
(HARYANA): A CASE STUDY**

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# Knowledge and Use of Electronic Resources by Faculty Members of Kurukshetra University Kurukshetra (Haryana): A Case Study

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**Abstract –** The purpose of this paper is to present the fact that electronic resources are a significant part of library collections and universities are investing a large amount in the development and management of these resources. In view of this, the study has been taken with an aim to identify the acceptance of e-resources in the Kurukshetra University Kurukshetra, Haryana, India and determine their usage, performance, degree of user satisfaction, and barriers being faced in the access of e-resources. It also attempts to find out the users' views about computer literacy.

The major findings of the study indicate that respondents are not much aware up to the satisfaction level about the e-resources (such as e-books, e-journals, e-encyclopedias, e-theses, CD-ROM databases, e-mail, internet and the OPAC). A Large number of respondents are using these e-resources for their research work. Many respondents strongly agreed with the necessity of computer and internet literacy to access information.

## INTRODUCTION

Advances in ICT applications during the past few decades have brought phenomenal changes in information storage and retrieval. The Internet and the World Wide Web are constantly influencing the development of new modes of scholarly communication and to overcome successfully the geographical limitations associated with the print media. Further, the access time between the product publication and its delivery has been drastically reduced. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access. This is especially helpful to distant learners who have limited time to access to commonly available electronic resources, mainly CD-ROM, OPACs and Internet, which are replacing the print media.

Libraries have witnessed a paradigm shift in recent years in their collection development, service structure and in collection development policies and practices.

## E-RESOURCES

E-resources are resources in which information is stored electronically and which are accessible through electronic systems and networks. E-resources is a very broad term that includes a variety of different publishing models, including OPACs, CD-ROMs,

online databases, e-journals, e-books, internet resources, print-on-demand (POD), e-mail publishing, wireless publishing, electronic link and web publishing etc. In this context the term means "any electronic product that delivers collection of data be it in text, numerical, graphical, or time based, as commercially available resource."

## OBJECTIVES

The main objectives of study as enumerated below are to investigate the true nature of the existing situation, resources, facilities and electronic services of Kurukshetra University Library:

- i) to assess the utilization of different types of Electronic resources for teaching and research;
- ii) to assess the knowledge of computer and information literacy for efficient and effective use of electronic resources;
- iii) to examine effectiveness of campus wide networking for the optimum utilization of E-resources;

- iv) to assess the utilization of electronic resources in conducting research and teaching;
- v) to find out the level of satisfaction in terms of richness of E-resources provided and quality of information searched from these resources;
- vi) to find out the hindrances & problems in the use of E – resources due to infrastructure;
- vii) to assess the frequency of use of different categories of electronic resources and the level of different types of services provided to the users; and
- viii) to suggest suitable recommendations to improve the use of Electronic resources and related services.

## PREVIOUS STUDIES

A number of relevant studies have been carried out pertaining the use of e-resources by teachers, students and research scholars of universities and research organizations.

Lack of training is a major de-motivating factor in the usage of e-journals. Kennedy proposes the inclusion of Web pages to the library catalogue as a solution to the maintenance of increasing web site links.<sup>1</sup>

Renwick recommends that there is great need for promotion of the library's e-resources.<sup>2</sup>

Kaur is of the view that e-resources can be good substitutes for conventional resources if the accessibility speed is fast and in order to make the e-resources easily accessible there is, need for more computer terminals for the use of faculties and researchers.<sup>3</sup>

Kaur and Verma find that users use all the sources available to them regularly, like CD ROMs, online databases, Web resources and audio/video tapes.<sup>4</sup>

Eqbal and Khan reported that 67.64% research scholars of faculty of science and 69.23% of research scholars of engineering use e-journals for research work whereas 35.29% of scientists use e-journals to update their knowledge and 23.70% engineers use these resources for their study.<sup>5</sup>

Naidu, etc., find that speed of availability and the ease of accessibility of information motivates the users to use electronic resources more frequently.<sup>6</sup>

Naqvi reported in his study that 49% respondents are marginally satisfied with online services provided by the library. The survey indicates that the use of e-resources in Jamia Milia Islamia is not satisfactory and needs constant guidance/orientation to enhance their

usage.<sup>7</sup> Dr. S.Arunachalam<sup>8</sup> has very rightly pointed out that the researchers in India face two problems – access to information relevant to one's research and one's work widely noticed .

E-journals are becoming a basic need for the academic research scholars every day. Navjyoti finds that speedy publication and availability on the desktop are the key advantages that attract research scholars.<sup>9</sup>

Seventy-eight percent of the respondents feel that the use of the UGC-Infonet e-journals has created high dependency value on their research work and they needed current article alert services and electronic document supply services (Madhusudhan 2008).<sup>10</sup>

Sudharma and Khan, indicate that respondents are aware of the e-resources (such as e-books, e-journals, e-encyclopedias, e-theses, CD-ROM databases, e-mail, internet and the OPAC). A Large number of research scholars and faculty members are using these e-resources for their research work. Many faculty members strongly agreed with the necessity for computer and internet literacy to access information. A majority of users were satisfied with the e-resources available at the NASSDOC library.<sup>11</sup>

Sharma reported that the use of e-resources is very common among the teachers and research scholars of Guru Gobind Singh Indraprastha University and a majority of the teachers and research scholars are dependent on e-resources to get the desired and relevant information. But practical use of e-resources is not up-to the worth in comparison to investment made in acquiring these resources; secondly infrastructure and training programs should also be reviewed as per requirements. It is observed that the availability of e-resources on the campus is almost sufficient for all the existing disciplines but the infrastructure to use these resources is not adequate and can hinder the ability to meet the requirements of users.<sup>12</sup>

## SURVEY DESIGN

This study is based on the survey of users of different teaching faculty members, research scholars and M.Phil. students of Kurukshetra University, Kurukshetra. All relevant information was obtained by conducting the interview of some respondents with the help of semi-structured questionnaire. The interviews have been conducted with different categories of respondents and questionnaire was finalized after testing its validity through a 'pilot study'.

## DATA ANALYSIS AND INTERPRETATION

The empirical data collected by means of survey through the distribution of questionnaire among the sample population of 150 respondents which includes faculty members, research scholars and M.Phil. Students selected randomly for the study of

Kurukshetra University, Kurukshetra, Haryana. The data analysis in Tabular form is as per annexure-I.

## **STATUS OF RESPONDENTS**

Table – 1 shows that 150 questionnaires were distributed among faculty members, research scholars and M.Phil. Students and the response were received from 110 respondents (i.e. 78.33%).

## **GENDER RATIO**

Table – 2 highlights gender ratio of male and female 69 (62.7%) and 41 (37.3%) respectively and found that the number of male respondents are higher than female.

## **AGE PARAMETER**

Table – 3 reveals that the respondents were divided into 4 age groups. The majority of respondents 56 (50.9 %) fall in age group of less than 30 years. The minority age group respondents 9 (8.2%) are below the age of 50 years. The data indicate that younger respondents are comparatively more inclined towards the electronic resources

## **INTELLECTUAL LEVEL**

Table – 4 shows that 49.1% of the respondents are having Ph. D degree and rest 50.9 % possess only master degree. It indicates that both M.Phil. Students and Ph.D. scholars are equally interested in using the electronic resources.

## **HIGHEST DEGREE FROM**

Table – 5 indicates that most of the respondents 105 (95.5%) are the product of Indian universities. Only 5 (4.5%) are having their highest degree from outside India. It reveals that our universities are producing equally good scholars as compared to the universities of abroad. The difference lies only in providing teaching and research facilities.

## **FACULTY WISE RESPONSE**

Table – 6 shows that 34 (30.9%) respondents belong to the faculty of Sciences. The remaining 69.1% respondents were from the faculties of Social Science 6(5.5%), Life Science 12(10.9%), Arts and Languages 18 (16.4%), Commerce and Management 14(12.7%), Law, 13(11.8 %), Indic Studies 6 (5.5%), Engg. & Technology 4(3.6%) and at the lowest end, 3 (2.7%) from Education.

## **ACADEMIC STATUS**

Table – 7 shows the academic status of over less than half of the respondents, 48 (43.6%) was of Lecturers, 11 (9.1%) was of Readers, and 11 (10%) was of Professors. 41(37.3) was of others which includes research scholars and M.Phil students. The reason for majority of lectures and others was that the university has appointed substantial number of lectures and started new M.Phil. Courses.

## **MEDIUM OF INSTRUCTIONS AND EXAMINATION**

Table – 8 shows that 87 (79.1%) English; 14 (12.7%), 6 (5.5%), 2(1.8%) Sanskrit and only one faculty used Foreign Language means other than English as a medium of instruction. The reason for English language at highest degree level is that in all the faculties of science and technology in KUK as the medium of instruction and examination.

## **TYPE OF APPOINTMENT**

Table – 9 shows that more than half of the respondents 64 (58.2%) work on permanent basis. Those who were on contract basis (contracts restricted to a set number of years as per agreement) with the university were only 46 (41.8%).

## **TEACHING HOURS IN A WEEK**

Table – 10 shows the academic work load of the respondents as - 57 (51.8%) of the respondents more than 12 hours a week, 22 (20%) between 6–9 hours a week, while 21 (19.1%) had a load up to 6 hours a week, only 10 (9.1%) had a load between 9-12 hours a week. It reveals that majority of teachers are to devote 12 hours or more in teaching every week in addition to guiding the Ph.D and M.Phil. Students.

## **IMPORTANCE OF COMPUTER LITERACY**

Table – 11 shows the importance of computer and information literacy to electronic resources. 47(42.7%) strongly agreed that computer literacy was important for using electronic resources, 40(36.4%) agreed, 12 (10.9%) disagreed, 8 (7.3%) are neutral and only 3 (2.7%) strongly disagreed that computer literacy was not important for using the two electronic resources. The data reveal that the 87(79.1%) respondents advocate the importance of computer literacy training programs.

## **SOURCE OF USAGE OF ELECTRONIC RESOURCES**

Table – 12 reveals that 66 (60%) respondents accessed the electronic resources from their departments, 22 (20%) from library, 17 (15.5%) from their home and rest 5(4.5%) from others sites The

main possibility of more accessibility in departments may be due to the availability of internet facility in the Departments.

### **Satisfaction level with electronic resources in library**

Table – 13 shows that majority of the respondents are satisfied with electronic resources, 10 (9.1%) are very satisfied, 44 (40%) are satisfied, 42 (38.2%) are somewhat satisfied

### **Adequate access to electronic resources (Library Provides)**

Table 14 shows that 51 (46.3%) respondents agree and strongly agree with the adequacy to access to electronic resources (Library Provides) .20 (18.2% ) strongly disagree and disagree to accessibility, 39 (35.5% ) are neutral to comment. The percentage of neutral can also be considered as disagreed percentage as they have not given their comments due to one reason or other.

### **Training for use of electronic resources**

Table 15 shows that 34 (30.9%) respondents agree / strongly agree 27 (24.5%) strongly disagree / disagree for the importance of adequate training and assistance. Rest of all have not given any comment.

### **Evaluate Search results of electronic resources**

Table- 16 shows the frequency of relevant and irrelevant search results. 9 (8.2%) respondents stated that search results are either very irrelevant or irrelevant whereas 57 (51.8 %) reported the search results as relevant or very relevant. But there is grey area also where 44 (40.00 %) respondents said results as somewhat relevant.

### **Quality of information acquired from electronic resources**

Table-17 shows that 50 (45.5 %) respondents reported that they acquired very high quality and quality information whereas 9 (8.2%) indicated that they found very poor or poor quality information. There was a substantial number 51 (46.4%) stated information of somewhat high quality. It is a clear indicator that users need training and information literacy awareness.

### **Access time when you search an electronic resource**

Table 18-shows the views of respondents about the access time as 46 (19.1% ) very slow or slow, 32 (46.4) as fast or very fast and 32 (34.5%) somewhat fast. The above results gave indication that there is a need of enhancement of bandwidth of internet connection.

## **INTERFACE OF THE LIBRARY WEB SITE**

Table- 19 reveals that 21 (20.0 %) very difficult or difficult, 51 (46.36 %) very easy or easy, 38 (34.5 %) somewhat easy the access of Library website It indicates that library website may be suitably modified as per requirement of the users.

### **Focus group session about points raised in the survey**

Table – 20: reveals that 49 (44.5) respondents were ready to discuss the points raised in the survey whereas 61 (55.5%) respondents were not ready to interact in the focus group session.

## **SUMMARY OF FINDINGS**

The study offers a way to identify the acceptance of e-resources, advantages and the problems encountered while accessing e- resources. The major findings of the study are summarized below:-

1. The study proved that the use of e-resources by faculty members, Research Scholars and M.Phil students, is not at the anticipated level.
2. Significant low usage was reported for the library website, search of online catalogue, e-books, and bibliographic databases provided by the Library. This attitude might be a result of lack of awareness and due to ineffective channels of communication in campus.
3. Majority of respondents are lecturers and researchers (80.9%) who are using e-resources which shows that younger generation has accepted the digital reading culture and use of electronic resources.
4. Significant number of respondents, 96 (87.3 %) are satisfied with e – resources provided by the library which proves that the university administration is well aware of the future trends and importance of digital resources.
5. Results of this survey obviously corroborated the opinion that faculty members seem to be equipped with fairly good computer skills that enable them to search and utilize e-resources. But the possession of computer skill alone is not adequate for efficient use of e-resources, hence more organized training programs are needed to familiarize some of the faculty members with the e-resources and train them as to how retrieve the relevant information.
6. Majority of users 66 (60%) access e-resources at their departmental level because



of good IT infrastructure made available in their respective departments.

7. Apparently the study has also discarded the likelihood that slow response time, and difficult usability of the library Web site deterred the use of e-resources.
8. Study reveals that usage of e-resources is influenced by languages other than English as a barrier in effective use of library resources. Consistent with that, it was found that the medium of e-resources being English was an obstacle to faculty members who conducted teaching and research in the Indian languages.
9. The low use of e-resources may have a relationship with increasing academic teaching loads, since 67 (60.9%) of the respondents teach for 9 or more than 12 hours a week, which adversely affects the focus of faculty members on research.
10. The study did not support the prevailing notion that faculty members in the humanities and social sciences use e-resources less frequently than their counterparts in science and engineering. There was no significant difference in usage across the faculty of the campus, with the faculty of engineering having the least usage.

#### **SUGGESTIONS AND CONCLUSIONS:**

1. Information professionals will have to develop more awareness programmes to market their e-resources services prevailing in their libraries.
2. In order to improve the efficiency of the users towards access to electronic resources, the university should provide hands on experience and conduct user orientation programme to users.
3. Need of more trained and skilled staff, who are well aware of the functioning of both software, hardware and retrieval processes who may help the users in areas like accessing, downloading, and printing of e-journals.
4. The users should be taught about the advanced search strategies and the use of controlled vocabulary to make the electronic search process much easier.
5. Libraries should start a Bulletin Board Service for posting messages and announcements to

inform ERL users about new electronic scientific resources.

6. The library should identify the non-users of electronic information sources and proper steps should be taken to convert them into potential users of the E – resources.
7. The library should provide printing facilities at a minimum cost.
8. The library should conduct user study programs to know more about information needs of the users.

#### **REFERENCES**

1. Kennedy, P: "Dynamic Web pages and the library catalogue", The Electronic Library, Vol. 22 No. 6, 2004 pp. 480-6.
2. Renwick Shamin: Knowledge and Use of Electronic Resources by Medical Science Faculty at the University of the West Indies. Libri, Vol. 43, No. 3, 2004, p58-64.
3. Kaur, Amritpal, Use of E-resources by Teachers and Researchers of the Science and Engineering & Technology Faculties in Guru Nanak Dev University: A Survey. In: NACLIN 2006, p267-285.
4. Kaur, Baljinder and Verma, Rama, Use of Electronic Resources at TIET Library Patiala: A Case Study. ILA Bulletin, Vol. 42, No. 3, 2006, p 18-20.
5. Eqbal Monawwer and Khan Azhar Shah, Use of Electronic Journals by the Research Scholars of Faculty of Science and Faculty of Engineering, In:NACLIN 2007, pp.309-319.
6. Naidu, GHS; Rajput, Prabhat and Motiyani, Kavita, Use of Electronic Resources and Services in University Libraries: A Study of DAVV Central Library, Indore. In:NACLIN 2007, pp309-319.
7. Naqvi, Shehbaz Husain, Use of Electronic Resources at Jamia Millia Islamia (A Central University): A Case Study, In: NACLIN 2007, p320-324.
8. Arunachalam, S: University News, 45(48 ) 2007, p114
9. Navjyoti, A : Snapshot of E-Journals' Adopters (Research Scholars) of Guru Nanak

Dev University, In: NACLIN 2007, pp.432-442.

10. Madhusudan, M: Use of UGC Infonet e-journals by research scholars and students of University of Delhi, Delhi, Library Hi Tech, Vol. 26 No. 3., 2008, pp. 369-386.
11. Sudharma, Haridasan and Khan, Majid, Impact and use of e-resources by social scientists in National Social Science Documentation Centre (NASSDOC), India The Electronic Library, Vol. 27, No.1, 2009, pp. 117-133.
12. Sharma, Chetan: Use and Impact of E-Resources at Guru Gobind Singh Indraprastha University (India): A Case Study. Vol.10 No.1, Electronic Journal of Academic and Special Librarianship. Vol.10 No.1 (Spring 2009)

#### Annexure –I

**Table-1 = Status of Respondents**

Sr. No.	No. of Questionnaire	No. of Respondents	% age
1	150	110	78.33

**Table-2= Gender Ratio**

	Frequency	Percentage
Male	69	62.7
Female	41	37.3
Total	110	100.0

**Table-3 = Age Parameter**

	Frequency	Percentage
Less than 30 years	56	50.9
Between 31-40	30	27.3
Between 41-50 years	15	13.6
51 years or more	9	8.2
Total	110	100.0

**Table-4 Intellectual Level**

	Frequency	%age
Master's	56	50.9
Ph.D.	54	49.1
Total	110	100.0

**Table – 5 Highest Degree from**

	Frequency	%age
India	105	95.5
Other Country	5	4.5
Total	110	100.0

**Table – 6 Faculty wise response**

	Frequency	%age
Social Science	6	5.5
Science	34	30.9
Life Science	12	10.9
Arts and Languages	18	16.4
Commerce and Management	14	12.7
Law	13	11.8
Indic Studies	6	5.5
Education	3	2.7
Engg. & Technology	4	3.6
Total	110	100.0

**Table – 7 Academic Status**

	Frequency	Percentage
Lecturer	48	43.6
Reader	10	9.1
Professor	11	10.0
Others	41	37.3
Total	110	100.0

**Table – 8= Medium of Instruction and Examination**

	Frequency	%age
English	87	79.1
Hindi	14	12.7
English and Hindi	6	5.5
Sanskrit	2	1.8
Foreign Language	1	.9
Total	110	100.0

**Table – 9 = Type of Appointment**

	Frequency	%age
Contract	46	41.8
Permanent	64	58.2
Total	110	100.0

**Table – 10 = Teaching Hours in a Week**

	Frequency	%age
Between 0-6 hours in a week	21	19.1
More than 6 – 9	22	20.0
More than 9 – 12	10	9.1
More than 12	57	51.8
Total	110	100.0

**Table – 11 = Computer literacy**

	Frequency	%age
Strongly disagree	3	2.7
Disagree	12	10.9
Neutral	8	7.3
Agree	40	36.4
Strongly Agree	47	42.7
Total	110	100.0

**Table – 12= Source of Usage of Electronic resources**

	Frequency	%age
From the library	22	20.0
From the Department	66	60.0
From home	17	15.5
Others*	5	4.5
Total	110	100.0

\* Ph.D and M.Phil.

**Table – 13 = Satisfaction level**

	Frequency	Percent	Valid Percent
Very dissatisfied	3	2.7	2.7
Dissatisfied	11	10.0	10.0
Somewhat satisfied	42	38.2	38.2
Satisfied	44	40.0	40.0
Very satisfied	10	9.1	9.1
Total	110	100.0	100.0

**Table – 14 : Adequate Access Time to E-Resources (Library Provide)**

	Frequency	Percentage
Strongly disagree	2	1.8
Disagree	18	16.4
Neutral	39	35.5
Agree	46	41.8
Strongly Agree	5	4.5
Total	110	100.0

**Table – 15: Training**

	Frequency	Percentage
Strongly disagree	3	2.7
Disagree	24	21.8
Neutral	49	44.5
Agree	29	26.4
Strongly Agree	5	4.5
Total	110	100.0

**Table – 16 : Search Results**

	Frequency	Percentage
Very irrelevant	3	2.7
Irrelevant	6	5.5
Somewhat relevant	44	40.0
Relevant	47	42.7
Very relevant	10	9.1
Total	110	100.0



**Table – 17: Quality of information acquired from electronic resources**

	Frequency	Percentage
Very poor quality	3	2.7
Poor quality	6	5.5
Somewhat high quality	51	46.4
High quality	42	38.2
Very high quality	8	7.3
Total	110	100.0

**Table – 18 : Access when you search an electronic resource**

	Frequency	Percentage
Very Slow	4	.9
Slow	42	18.2
Somewhat fast	32	34.5
Fast	26	39.1
Very fast	6	7.3
Total	110	100.0

**Table – 19 Interface of the library web site**

	Frequency	Percentage
Very difficult	1	.9
Difficult	20	18.1
Somewhat easy	38	34.5
Easy	43	39.09
Very easy	8	7.27
Total	110	100.0

**Table – 20 = Focus group session about points raised in the survey**

	Frequency	Percentage
Yes	49	44.5
No	61	55.5
Total	110	100.0