Use of E-Resources by Engineering Faculties in Selected Universities of Western Uttar Pradesh, India: A Survey

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Abstract

The present study sought to identifies trends among engineering faculties at Selected Universities of Western Uttar Pradesh in utilizing conventional/electronic information resources and services to develop their teaching, research and personal knowledge. The problem has been studied based on the information available in the open literature and a survey conducted on the use, awareness and utilization of collections and services in higher education. The study is based on questionnaire method. A questionnaire was distributed among the faculties to collect desired data. A total of 200 questionnaires were distributed to the selected sample for the session 2010-11; 191 valid samples were collected. The result showed a growing interest in electronic information resources among the engineering faculties at Universities of Western Uttar Pradesh. All the faculties belonging to the concern Universities use of e-journals, e-articles, databases, e-books, downloading services and online search facilities available in the university. All the faculties belonging to the concern Universities used Science Direct, IEEE/IEE IEL online, Springer, INSIGHT and EBSCO online. The result showed that all the respondents got better informed, get current, comprehensive information and save time by using Electronic Information Resources. All the respondents preferred online version of journals and all the respondents stated that by using e-resources the quality of research improved highly.

Keywords: *CD-ROM, E-resources, Online Database, Online journals*

1. INTRODUCTION

In the fast-emerging and ever-growing information explosion it is very difficult to retrieve particular information without wasting time. Recent advances in the field of information technology contribute significantly to improve the services of libraries. Now-a-days libraries are not only seen with printed document and non-print document but also with computers. The impact of technologies such as CD-ROMs, multimedia, computer networks, Internet, etc. have lead to a paperless society. With the availability of computers, capable of computing at very high speed and having large disc storage space, it is possible to digitize and store information in the form of high quality graphics, colour images, voice signal and video clips at a relatively affordable cost.

Scholarly use of information services has changed substantially in recent years. Members' research practices and teaching methods have both shifted, most often at a disciplinary level. Network-level services, such as digital content resources, a variety of new kinds of discovery tools, new services for information organization and use, and scholarly and pedagogical interaction and collaboration tools, have been the most important factor in leading this change. This section examines some of the most important trends in information discovery and use, and, because these services are increasingly provided online rather than locally, the profound challenges they pose for a diverse range of information service providers. Traditional research practices relied heavily on the library itself and on locally implemented library-provided tools for discovery of books, journal articles, and other materials. Today, there are numerous alternative avenues for discovery, and libraries are challenged to determine what role they should appropriately play. Basic scholarly information use practices have shifted rapidly in recent years, and as a result the academic library is increasingly being disinter mediated from the discovery process, risking irrelevance in one of its core functional

areas. This section examines how patterns of information discovery and usage by faculty members are changing and the implications of these changes for their perceptions of traditional and emerging roles of the library.

2. PROBLEM STATEMENT

An ever-increasing portion of library collections dollars are committed to purchase of networked services. Yet relatively little is known about how these services are used, who uses them, and what the overall impact of these services is. There has been no study conducted so far to measure the use of these services and e-resources in the Universities Libraries of Western Uttar Pradesh to assess factors that may influence the usage of these resources. Moreover, the cited literature reveals that the studies of use, user perception and user satisfaction with services and e-resources have been conducted in the Country. However, Universities in India lack systematic user-centred research. Therefore, an inquiry is deemed necessary to explore the frequency of use of Web-based e-resources in the Universities and the barriers that influence the effective use of these vital resources.

3. REVIEW OF LITERATURE

Several authors discussed how to distinguish among overused, underused and average used classes. Baljinder Kaur and Rama Verma [1] conducted the survey that was an attempt to study the issues like use of electronic information resources, its impact on the collection of print and electronic journals its awareness among the users, and the places where the users are accessing these resources. A survey was conducted in the academic year 2006-07 at the Thapar University, Patiala. A total number of 504 users from the undergraduate, postgraduate, research scholar and faculty members were selected and their response was obtained with the help of questionnaire. The findings how that users from all these categories were using e-resources; the awareness about e-resources encourages users to use such resources to the maximum; and the users are using computer centre and hostels more for accessing the information. The impact of e-resources was visible from the decrease in number of printed journals in comparison to the increase in number of electronic journals. The use of e-journals has increased manifold. The printed material is being quickly replaced by the electronic resources.

Razaaand, M-Masoom and Upadhay [2] carried out a survey at AMU to study the usage of electronic resources by the researchers. They found that many researchers are consulting electronic resources for research purposes.

4. OBJECTIVES OF THE STUDY

The present study sought to identifies trends among engineering faculties at Selected Universities of Western Uttar Pradesh in utilizing conventional / electronic information resources and services to develop their teaching, research and personal knowledge. The specific objectives of the study are:-

1. To identify the various sources of information and services used by them;

2. To analyze the different purposes for which the EIS is used by the respondents;

3. To know the impact of usage of EIS on education;

4. Finally to assess the satisfaction level of the users with the access to EIS in the Universities.

5. SCOPE OF THE STUDY

The present study deals with use and impact of e-resources on faculties in Selected Universities of Western Uttar Pradesh. This can be extended over to the other academic libraries. Detailed analysis can be taken to see the impact of technology on libraries and usage. There is a vast scope for further research to study different types of users' behaviour and comparison of users' behaviour and attitudes towards the e-resources. Finally investigator believes that studies are needed on ways to improve and encourage users to use maximum of electronic information resources. The results will help collection developers in designing suitable policy and assess the technical intricacies faced by the library staff in providing effective EIS services. It will also help in designing the efficient infrastructure requirements for managing journals in both the formats.

6. METHODOLOGY

The present study was carried out to assess the use, awareness of collections and services of libraries by engineering faculties at Selected Universities of Western Uttar Pradesh. Research method followed was a survey method. Questionnaire tool was used to collect the data. The sample consists of 6 Universities in the Western Uttar Pradesh (see details in table given below). The sample respondents chosen for the study consists of Professors, Associate Professors, Assistant Professors and Lecturers. A total of 200 questionnaires were distributed (randomly) to the selected sample for the current year; 191 valid samples were collected and analyzed.

S.No.	Name of the University	Location
1	Amity University	Noida
2	Chaudhary Charan Singh University	Meerut
3	SRM University's NCR Campus	Ghaziabad
4	Sardar Vallabh Bhai Patel University	Meerut
5	Swami Vivekanand Subharti University	Meerut
6	Shobhit University	Meerut

7. DATA ANALYSIS AND INTERPRETATION

Although it is not our intension to discuss the data collected in detail, since they relate to a specific universities, it might be insightful to consider a few representative examples of both information collected and action plans.

By job roles: 35 (18.32%) were Professors, 41 (21.47%) were Associate Professors, 48 (25.13%) were Assistant Professors, and 67 (35.08%) were Lecturers (Table 1).

Table 1 Demographics of Respondents

S.No.	Designation	Response	Percentage (%)
1	Professors	35	18.32%
2	Associate Professors	41	21.47%
3	Assistant Professors	48	25.13%
4	Lecturers	67	35.08%
	Total	191	100%

According to their own assessment, a majority (80.10%) of the respondents stated that they are having "average skill" in the use of computers, (19.90%) of the respondents opined to have "above average skill" in the use of computers. On the whole, respondents' self-perceived ability to use the computer for electronic information sources is quite high (Table 2).

The respondents were asked to mark the library services used by them in the university premises. The services provided by university libraries depicted in Table 3. The analysis shows that all the faculties belonging to the concerned universities use e-journals, online databases, internet, CD-ROM databases and Scan/Xerox/Printout facilities provided by the library of concerned universities (table 3).

The respondents were asked to indicate the conventional sources mostly consult. The analysis shows that majority of the respondents belonging to the concerned universities used journals [Professors (80.00%), Associate Professors (65.85%), Assistant Professors (68.75%) and Lecturers (61.19%)]. The overall response of consulting printed journals was 67.53% (Table 4).

Table 2 Perceived Level of Computer Literacy

	Computer Literacy		
Professional Status	**Average**	**Above Average**	**Total**
Professors	29 (82.86%)	6 (17.14%)	35 (100%)
Associate Professors	35 (85.37%)	6 (14.63%)	41 (100%)
Assistant Professors	38 (79.17%)	10 (20.83%)	48 (100%)
Lecturers	51 (76.12%)	16 (23.88%)	67 (100%)
Total	153 (80.10%)	38 (19.90%)	191 (100%)

Table 3 Use of Library Services

Library Services	Professors	Associate Professors	Assistant Professors	Lecturers
Lending Service	11 (31.42%)	9 (21.95%)	12 (25.00%)	23 (34.32%)
Reference Service	5 (14.28%)	8 (19.51%)	7 (14.58%)	11 (16.41%)
Internet Facility	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Online Database	35 (100%)	41 (100%)	48 (100%)	67 (100%)
E-Journals	35 (100%)	41 (100%)	48 (100%)	67 (100%)
CD-ROM Database	35 (100%)	41 (100%)	48 (100%)	67 (100%)
CAS	9 (25.71%)	11 (26.82%)	11 (22.91%)	12 (17.91%)
SDI	13 (37.14%)	15 (36.58%)	11 (22.91%)	9 (13.43%)
Scan/Xerox/Printout	35 (100%)	41 (100%)	48 (100%)	67 (100%)

Table 4 Use of Conventional Library Materials by the Faculties

Resources	Professors	Associate Professors	Assistant Professors	Lecturers	Total %
General Books	9 (25.71%)	3 (7.31%)	12 (25.00%)	18 (26.86%)	42 (21.98%)
Reference Books	8 (22.85%)	9 (21.95%)	8 (16.66%)	15 (22.39%)	40 (20.94%)
Journals	28 (80.00%)	27 (65.85%)	33 (68.75%)	41 (61.19%)	129 (67.53%)
General Magazines	-	-	2 (4.17%)	9 (13.43%)	11 (5.76%)
Newspapers	-	7 (17.07%)	10 (20.83%)	13 (19.40%)	30 (15.70%)
Newspaper Clippings	10 (28.57%)	2 (4.88%)	7 (14.58%)	5 (7.46%)	24 (12.56%)
Thesis	11 (31.42%)	11 (26.82%)	9 (18.75%)	17 (25.37%)	48 (25.13%)
Conference Proceedings	10 (28.57%)	12 (29.26%)	11 (22.92%)	19 (28.35%)	52 (27.22%)
Technical Reports	15 (42.85%)	12 (29.26%)	10 (20.83%)	4 (5.97%)	41 (21.46%)

The analysis shows that all the engineering faculties belonging to the concerned universities used mostly education related information on the internet. The other purposes depicted in Table 5.

Table 5 Information Seeking at Internet

S.No.	Purpose	Respondent	%
1	Education	191	100%
2	Entertainment	37	19.37%
4	Health	18	9.42%
5	Sport	26	13.61%
6	Any other	7	3.66%

Table 6 shows the percentage of faculties using various e-resources provided by their library. All the faculties belonging to the concerned universities preferred e-journals, e-articles, databases, e-books, downloading services and online search facilities available in the university.

Table 6 Use of Electronic Information Resources

Type of E-information Used	Professors	Associate Professors	Assistant Professors	Lecturers
E-Journals	35 (100%)	41 (100%)	48 (100%)	67 (100%)
E-Articles	35 (100%)	41 (100%)	48 (100%)	67 (100%)
E-Thesis	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Databases	35 (100%)	41 (100%)	48 (100%)	67 (100%)
E-Books	35 (100%)	41 (100%)	48 (100%)	67 (100%)
E-Archives	19 (54.28%)	17 (41.46%)	7 (14.58%)	-
Downloading Services	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Online Search	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Subject Gateways	23 (65.71%)	7 (17.07%)	7 (14.58%)	-
Newsgroups	13 (37.14%)	2 (4.87%)	-	-

On analyzing the data it was observed that, all the faculties belonging to the concerned universities used Science Direct, IEEE/IEE IEL online, Springer, INSIGHT and EBSCO online mostly. The table 7 also shows the usage of other online journals.

Table 7 Use of Specific Types of Subjects and Allied Areas Electronic Information Sources

Online Journals/	Professors	Associate	Assistant	Lecturers
ABI/INFORM	13 (37.14%)	12 (29.26%)	11 (22.92%)	19 (28.35%)
ASCE Journals	5 (14.28%)	9 (21.95%)	8 (16.67%)	15 (22.38%)
ASME(TAMR)	5 (14.28%)	8 (19.51%)	7 (14.58%)	11 (16.41%)
Science Direct	35 (100%)	41 (100%)	48 (100%)	67 (100%)
IEEE/IEE	35 (100%)	41 (100%)	48 (100%)	67 (100%)
J-Gate	7 (20.00%)	12 (29.26%)	10 (20.83%)	4 (5.97%)
Springer	35 (100%)	41 (100%)	48 (100%)	67 (100%)
INSIGHT	35 (100%)	41 (100%)	48 (100%)	67 (100%)
EBSCO online	35 (100%)	41 (100%)	48 (100%)	67 (100%)
ESDU	10 (28.57%)	2 (4.88%)	7 (14.58%)	4 (5.97%)
GMID	10 (28.57%)	2 (4.88%)	2 (4.17%)	4 (5.97%)

The respondents were asked to give reasons as to why they use electronic information resources. Various professional purposes for which electronic information resources was used were elicited from the respondents. Table 8 indicates the purpose of using the electronic information resources. All the faculties belonging to the concerned universities used EIS for ongoing research work, writing a research/review paper for publication and for gathering subject specific information (Table 8).

Table 8 Purpose of Using Electronic Information Sources

Purpose	Professors	Associate Professors	Assistant Professors	Lecturers
EIS Use for Research Work	35 (100%)	41 (100%)	48 (100%)	67 (100%)
EIS Use for Preparation of Thesis/Dissertations/Projects	5 (14.28%)	9 (21.95%)	8 (16.67%)	15 (22.38%)
EIS Use for Writing a Research/Review Paper for Publication	35 (100%)	41 (100%)	48 (100%)	67 (100%)
EIS Use for Gathering Subject Specific Information	35 (100%)	41 (100%)	48 (100%)	67 (100%)

Table 9 reveals that all the faculties belonging to the concerned universities preferred online version of Journals, whereas (54.28%, 41.46%, 16.67% and 22.38%) faculties preferred Print Version.

Table 9 Preference Level of Using Online Journals

EIS	Professors	Associate Professors	Assistant Professors	Lecturers
Print Version	19 (54.28%)	17 (41.46%)	8 (16.67%)	15 (22.38%)
Online Version	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Both	10 (28.57%)	9 (21.95%)	8 (16.67%)	4 (5.97%)

Users perceive electronic information sources to hold many advantages. Some of the main benefits of using electronic information resources are listed in Table 10. From the analysis it is evident that all the respondents got better informed, get current, comprehensive information and save time by using Electronic Information Resources (Table 10).

Table 10 Benefit of Electronic Information Sources

Nature of Benefit of EIS	Professors	Associate Professors	Assistant Professors	Lecturers
Access to information more better	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Time saving fact	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Better Access to current information	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Better Access to comprehensive information	35 (100%)	41 (100%)	48 (100%)	67 (100%)

Electronic Information Resources provide latest, comprehensive and up to date information which are essential for research. The respondents were asked to indicate to what extent they feel the impact of E-Resources on quality of research. All the respondents stated that by using e-resources the quality of research improved highly (Table 11).

All the respondents are highly satisfied with the infrastructure provided by the library for accessing online journals and their databases at different levels (Table 12).

Table 11 Impact of E-Resources on Quality of Research

Impact on Research	Professors	Associate Professors	Assistant Professors	Lecturers
Highly Improved	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Improved	-	-	-	-
Moderately Improved	-	-	-	-
Little Improved	-	-	-	-
Not Improved	-	-	-	-

Table 12 Satisfactory Level

Satisfactory Level	Professors	Associate Professors	Assistant Professors	Lecturers
Highly Satisfied	35 (100%)	41 (100%)	48 (100%)	67 (100%)
Satisfied	-	-	-	-
Average	-	-	-	-
Not Satisfied	-	-	-	-

8. CONCLUSION

The emergence of electronic information and communication environment has provided the academic community with wide opportunities to satisfy their information needs. In terms of information seeking, today's user seems to be comfortable with using a wide variety of sources for information. Internet search engines, e-print servers, author Web sites, full-text databases, electronic journals, and print resources are all used to some degree by most users. The relative amounts of use and enthusiasm for use vary as described above, but today's users are mostly flexible and adaptable.

Both browsing and searching remain important information-seeking behaviours, but there is some evidence that the amount of searching is going up when users have access to multi-title, full-text databases. Browsing through journal issues is done in print issues or in electronic journals for core journal titles. Articles from non-core journals are most often located through searching. Convenience remains the single most important factor for information use—all types of users prefer electronic journals only if they make their work easier and give them the information they need. Desktop access, speed of access, and the ability to download, print, and send articles are top advantages of electronic journals for all groups.

Results of this survey obviously ascertained the opinion that engineering faculties at universities in Western Uttar Pradesh seem to be equipped with fairly good computer skills that enable them to search and utilize e-resources. It seems the possession of computer skills alone are not adequate for efficient use of e-resources, hence more organized training programs are needed to familiarize some of the members with the e-resources, even though the results didn't explicitly show there was a severe lack of training or that librarians offered insufficient bibliographic instruction.

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