# Use and Impact of Electronic Resources among the Faculty Members of St. Xavier's catholic College of Engineering, Chunkankadai

**N. Selvaganapathi**
Librarian,
Pioneer Kumaraswamy College, Nagercoil - 629 003

**S. Surianarayanan**
Librarian (SG),
Sri Paramakalyani College, Alwarkurichi – 627 412

Abstract

*The main focus of the research was to examine the acceptance of e-resources by faculty members of St. Xavier's Catholic College of Engineering, Chunkankadai, and determine usage, satisfaction of users and barriers faced in the access of e-resources. The questionnaire method was used to examine and collect data from the faculty. The present study indicates that the survey of the 90 samples taken from the faculties of St. Xavier's Catholic College of Engineering, Chunkankadai India. 70 Samples are from Assistant Professor categories, 10 Samples from Associate Professor categories and 10 Samples from Professor categories. This study evaluate how the electronic resources can be used by faculties to improve efficiency and productivity in academic activities.*

Keywords

E-resource, Teaching faculty members, library resources.

Electronic access

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## Introduction

Today, the advent of information technology has resulted in reducing the size of libraries. In fact, these smaller modern libraries are rich potential of information. It has been possible due to the digitization of information. The digital and electronic information is based on digitized data/information, which has gradually replaced paper-based records. As the visual information system in comparison to text based information system is getting more and more popular these days, the traditional libraries are becoming hybrid libraries as they are in the process of doing digitization of their documents and moving towards to become digital libraries. There are number of terms which are used by authors to represent the concept of digital libraries. These terms are; polyglot library, electronic library, desktop library, online library and library without walls etc. The term 'digital and electronic library' is the common word used by majority of the authors. A digital library is defined as "an organized collection of online full-text digital information focused on one or more specific subject areas" (Monopoli et al., 2002).

## Historical Background and Growth of Electronic Resources:

The information in electronic format was created with the advent of computer in1950s, it was not until the early 1960s that the first database suitable for searching was developed (Meadow, 1988). The advent of non-book materials in India had been slow. The non-book materials started to appear in the 1960s (Taher and Davis, 1994) , like T.P.Sexena and Saifuddin's Problems of Cataloguing Microfilms in 1962 ; the Bombay based Atomic Energy Establishment Microforms Bulletin in1963; M.S. Hussain's Audiovisual Librarianship; S.P. Singh's Automation in libraries in 1975 are few examples. Sodak and Schwarz being the first to (1973) conceive electronic form of the scholarly journal; their vision was distribution of computer output microfiche to individual subscribers (Lancaster, 1995). MEDLARS was the first on demand computer-based information retrieval service, and it was developed primarily for the medical profession. In 1971, MEDLINE, the online version of MEDLARS, was the first major online dial-up database search service. DIALOG offered the first public online commercial database. With the introduction of CD-ROM in mid-1980 electronic resources began to have a major impact on selection practices in libraries (Meadow, 1998). The emergence of various distribution systems of

electronic journals from CD-ROM was the first step to local data loading, where publishers provided image and text data directly to libraries (Barnes, 1997). The three types of e-journals identified are as follows:
1) On-line,
2) CD-ROM, and
3) Networked Journals

**Review of Literature**

Sharma (2009) identifies e-resources to include journals, data archives, manuscripts, maps, books, magazines, theses, newspapers, e-mail, research reports, and bibliographic databases. Ibrahim (2004) adds library websites, online catalogues, and online reference works, while Aramide and Bolarinwa (2010), mention A-V resources, instructional audio tapes, instructional video tapes, VCD/DVD, radio, television, multimedia projectors, e-resources-electronic databases, e.g., JSTOR,ERIC, e-documents, Internet/e-mail facility, CD-ROMS, computers, telephone facility (GSM/Landline), VSAT, printers, and digital cameras.Omotayo (2010), Thanuskodi (2010), Sharma (2009), Borrego (2007), and Ibrahim (2004) haveall reported that e-journals are the most used among the arrays of available electronic resources.As reported by Omotayo (2010) 22 (8.98%), 67 (37.35%), 102 (41.63%), 34 (13.88%) and 20 (8.16%) of the total population of 245 used electronic journals daily, weekly, monthly, bi-monthly and occasionally respectively. A majority use e-journals monthly, while 52% of total population in Borrego, et al. (2007) stated that they use electronic journals exclusively or mainly. Thanuskodi (2010) identified and tested ten e-journal sources: Highwire Press, MedBio World, Ingeta, All Health Net, Blackwell Synergy, Medind, Science Direct, LWW Online, Springer Link, and Health Inter Network India and found that the respondents preferred the Highwire Press CD-ROM database with a mean score of 4.15 on a 5 point rating scale.

**Objectives of the study:**

The main objectives of this study are:

- To study the use and impact of electronic resources on the library of St. Xavier's Catholic College of Engineering, Chunkankadai.
- To develop a plan for implementation of use of electronic resources.

**Issues:**

This research work includes the following issues to be taken up for study:
- Use of electronic resources by faculty members.
- Impact of electronic resources on print material, collection and usage
- Purpose of use of e-resources and internet /websites
- Search methods and services provided at their respective institute
- Obstacles preventing users from accessing an electronic resources
- Frequency of use of e-resources, CD-ROM and Internet
- Opinion on preference of use of electronic or printed version.

**Need of the Study**

In the present day contest, Use of electronic resources is highly needed in libraries and information centers especially because of:
1. Information Explosion
2. Availability of Information in Machine Readable Form
3. Multi-use of Machine Readable Records
4. Economic Feasibility
5. Routine Jobs
6. Increase in Users
7. Storage Capacity

**Methodology:**

For realizing the objectives of any study data, it is required and in turn, for the collection of data, a field is selected to realize the objectives of the study to collect data required for the purpose, the researcher chooses Use and Impact of electronic resources among the faculty members of St. Xavier's Catholic College of Engineering, Chunkankadai.

**Limitations:**

This study is especially applicable to the Library of St. Xavier's Catholic College of Engineering, Chunkankadai. Use and impact of electronic resources have been analyzed only by collecting the data from the faculties of this college only. This study has been conducted only in the Library of St. Xavier's Catholic College of Engineering, Chunkankadai. The boundary of survey does not cover the library of any other colleges.

**St.Xavier's Catholic College of Engineering Profile**

This College was established during the academic year 1998 and managed by the Roman Catholic Bishop of Kottar Diocese. Approved by Government of Tamil Nadu, Recognized by AICTE, New Delhi Affiliated to Anna University. The college is situated in a beautiful hillock at Chunkankadai in Kanyakumari District, overlooking the Nagercoil – Thiruvanathapuram Highway.

A Four year UG Courses are CSE, ECE, EEE, Civil, Mechanical and B.Tech course Information Technology and Two year PG Courses are Control and Instrumentation, Applied Electronics, Construction Engineering and Management , Energy Engineering, Computer Science, Communication and Networking, Communication System , Power Electronics and Drives, Medical Electronics, Structural Engineering and MCA, M.B.A Course and Research Centre at Anna University, Chennai, the following Courses are available.
1. Mechanical, 2.Information Technology, 3. Computer Science and 4. Electronics and Communication Engineering.

The Central Library has 24000 Volumes and 8451 Titles, 1500 CDs, 105 Floppies, 16Audio Cassette and DELNET Membership. The Electronic Journals like IEEE, Science Direct, Springer link, Wiley Online Journals, ASTM, McGraw Hill and J-Gate are available

Analysis of data: Background variables:

The sample for the present study consists of 90 faculties. The age of the faculty responding to the questionnaire varies from 25 to 55 years. Out of 90 faculties, 50 are Female and the remaining Male. Again 60 respondents are of rural background and the remaining 30 are from urban areas. Out of 90, 70 respondents are handling UG classes, Ten PG and 10 respondents are handling UG & PG classes, 30 from Humanities and science faculty and the remaining 60 are from engineering faculty.

**Table 1. Frequency of Use of Electronic Resources:**

| Sl. No | Frequency of Visit | No. of Users | % |
|---|---|---|---|
| 1 | Daily | 53 | 58.80 |
| 2 | Once in a Week | 10 | 11.12 |
| 3 | Once in Two Weeks | 12 | 13.33 |
| 4 | Rarely | 15 | 16.66 |
| | Total | 90 | 100.00 |

Among the total respondents 44.45% are males and 55.55% are females. Table 1 shows that 58.80% respondents made daily access electronic resources and 11.12% respondents access library once in a week and 13.33% respondents access library once in two weeks and 16.66% respondents access occasionally.

**Table 2. Purpose of Use of Electronic Resources:**

| Sl. No | Purpose of Visit | No. of Users | % |
|---|---|---|---|
| 1 | Preparing Lecture Notes | 453 | 31.30 |
| 2 | Paper presentation in seminar | 406 | 28.35 |
| 3 | Writing articles for journals | 369 | 26.19 |
| 4 | To Improve subject Knowledge | 428 | 29.61 |
| 5 | Preparation for Higher studies | 321 | 23.30 |
| 6 | Guiding the scholar | 287 | 21.25 |

Table 2 shows that, with regard to the purpose of use of electronic resources, it was found the majority of the respondents 31.30% using electronic resources to prepare lectures notes, to improve subject knowledge 29.61%, Paper presentation in seminar 28.35%, writing articles for journals 26.19%, preparation for higher studies 23.30%. Only 21.25% of respondents visited the library for guiding the scholar. The above analysis reveals that the respondents are more interested to use electronic resources for preparing lectures notes.

**Table 3. Level of Satisfaction of Access of Electronic Resources**

| FACULTY MEMBERS | LEVEL OF SATISFACTION OF ACCESS OF e-Journals | | | | | Total |
|---|---|---|---|---|---|---|
| | Very Good | Good | Satisfactory | Poor | Very Poor | |
| Lecturer | 50 (55.55) | 6 (6.66) | 1 (1.11) | 1 (1.11) | 12 (13.33) | 70 (77.78) |
| Senior Lecturer | 6 (6.66) | 2 (2.22) | 1 (1.11) | 1 (1.11) | 0 (0.00) | 10 (11.11) |
| Assistant Professor | 10 (11.11) | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) | 10 (11.11) |
| Total | 66 (73.33) | 08 (8.89) | 2 (2.22) | 2 (2.22) | 12 (13.34) | 90 (100.00) |

The Data in Table : 3 indicate distribution of Faculty members according to level of satisfaction of Access of e-Journal. Out of all total respondents (73.33) percent have expressed Very Good followed by Very Poor (13.34), Good(08.89), Satisfactory and Poor (02.23) respectively.

**Table 4.Use of Digital Online resources**

| Sl. No | Use of Digital Online Resources | No. of Users | (%) |
|---|---|---|---|
| 1 | e-journals | 487 | 33.35 |
| 2 | e-books | 385 | 27.07 |
| 3 | Database of scholarly articles | 389 | 27.44 |
| 4 | Virtual Library | 315 | 22.67 |
| 5 | Subject Gateways | 340 | 24.24 |
| 6 | Database of Thesis | 355 | 25.20 |

Table 4 shows that 33.35% of respondents are using e-journals, followed by 27.44% using database of scholarly articles, 27.07% e-books, 25.20% using database of thesis, 24.24% are using subject gateways and 22.67% using Virtual library.

**Table 5. Most preferred format:**

| Sl. No | Format | No. of Users | (%) |
|---|---|---|---|
| 1 | MS Word | 20 | 22.22 |
| 2 | PDF | 50 | 55.55 |
| 3 | HTML | 11 | 12.23 |
| 4 | Both | 9 | 10.00 |
| | Total | 90 | 100.00 |

The Data in Table: 05 indicate distribution of Faculty members according to most preferred format. Out of all total respondents (55.55) percent have preferred PDF Format followed by MS Word (22.22), HTML (12.23) and Both (10.00),

**Table 6. Frequently used location to access e-resources**

| Sl. No | Frequently used location | No. of Users | (%) |
|---|---|---|---|
| 1 | Office | 05 | 05.55 |
| 2 | Computer Lab | 10 | 11.12 |
| 3 | Library | 70 | 77.78 |
| 4 | Others | 05 | 05.55 |
| | Total | 90 | 100.00 |

The Data in Table: 06 indicate distribution of Faculty members according to Frequently used location to access e-resources. Out of all total respondents (77.78) percent used Library to access e-resources followed by Computer Lab (11.12), Office and Others (05.55) respectively.

**Table 7. Ways to Browse electronic resources**

| Sl. No | Ways to Browse | No. of Users | % |
|---|---|---|---|
| 1 | Using the URL | 60 | 66.66 |
| 2 | Use search Engines | 20 | 22.22 |
| 3 | Use Subscription data base | 10 | 11.12 |
| | Total | 90 | 100.00 |

The Data in Table: 07 indicate distribution of Faculty members according to Ways to Browse electronic resources. Out of all total respondents (66.66) percent Using the URL to access electronic resources followed by Use Search Engines (22.22), Use subscription data base (11.12) respectively.

**Table 8. Impact of digital information resources on academic development**

| Sl. No | Impact of digital information resources | No. of Users | % |
|---|---|---|---|
| 1 | Access to current/up-to-date information | 22 | 24.44 |
| 2 | Easier access to information | 18 | 20.00 |
| 3 | Faster access to information | 31 | 34.44 |
| 4 | Access to a wide range | 19 | 21.12 |
| | Total | 90 | 100.00 |

The Data in Table : 08 indicate distribution of Faculty members according to Impact of digital information resources on academic development. Out of all total respondents (34.44) percent impact of digital information resources on academic development faster access to information is top most level followed by Access to current/Up to date information (24.44), Access to wide range (21.12) and Easier access to information (20.00).

**Findings and Suggestions:**

Based on the analysis of data, the following findings and suggestions are made:

1. Frequency of Use of electronic resources, Daily access are found more and access of Once in two weeks are found less among the faculty members.

2. The Faculty members purpose of Use of electronic resources, preparing Lecture Notes are found more and Guiding the scholar are found less among the faculty members.

3. The faculty members Level of Satisfaction of Access of Electronic Resources Very good is in top most level than Poor and satisfactory.

4. The faculty members are found more in Use of Digital Online Resources e-Journals and found less in Use of Digital Online Resources Virtual Library among the faculty members.

5. The Faculty members according to most preferred format, PDF Format are found more and Both are found less.

6. Frequently used location to access e-resources, the location Library is found more, Office and Others (05.55) are found less among the faculty members.

**Conclusion:**

An analysis of the present study shows that the number of subscription of electronic resources may be increased. There is an urgent need to increase Speed of Internet connectivity to access e-journals may be increased.

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