

*Full Length Research Paper*

# The value of IT in university library for teaching, research and learning process: A case study of Sri Padmavathi Mahila Visvavidyalayam (SPMVV) University in India

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**The aim of this study is to analyze the use of the internet and related issues among the teachers of Sri Padmavathi Mahila Visvavidyalayam (SPMVV) University, Tirupati. A well structured questionnaire was distributed among the 120 faculty members from 5 faculties. The response rate was around 80%. The present study demonstrates and elaborates the various aspects of internet use such as frequency of internet use, purpose for which the internet is used, time spent in internet section, problems faced in internet section, preferences of using search engines and satisfaction with internet facilities provided in the SPMVV library. It was found out that internet had become a vital instrument for teaching, research and learning process of these respondents. Some suggestions have been set forth to make the service more beneficial for the academic community of the institution under study.**

**Key words:** Internet, search engines, electronic communication.

## INTRODUCTION

Statistical data available reveal the fact that there is an increasing trend of internet users in India. Their number is doubling speedily. It is being used for both academic as well as commercial purposes by a large segment of Indian masses. University librarians in India now advocate internet connectivity even at places like recreational rooms, clubs, hostels, playground and every public place in the university for maximum utilization and to feed the information appetite of the community of users. But, at the same time they need to develop more skills and strategies that can help them to retrieve information from the internet with more precision than trying to recall the need of the hour. Since technological developments are fast. This call for regular training to learn more and more new skills and competencies, which require an intense focus on users' information needs and continuous assessment of their skills to remain updated.

Internet services provide networking between various computers by moving files and texts, library catalogs, sending and receiving e-mail, searching of databases etc. Some of the other functions include reading of news from many different sources, and finding of software. Internet

has not only helped in accessing information, but has also introduced new ways for storing, moving, finding and communicating information among themselves and users. It has opened various options for reference and public services. As various dictionaries, census information and CIA World Fact Book are available from numerous websites, ready reference service can be provided at greater speed.

Apart from internet providing assistance in reference service, it also increases pressure on reference librarians because the electronic versions of information sources have to stay current with internet resources. Reference librarians work as 'intermediaries' in the information-seeking process. This is how internet is changing the nature of traditional reference interaction with users.

Electronic resources are the electronic representation of information. These are available in various forms like e-books, digital libraries, online journal magazine, e-learning tutors and online test. Because of effective presentation with multimedia tools, these e-resources have become source of information. Electronic resources deliver collection of information as full text databases, e-

journals, image collections, multimedia in the form of CD, tape, internet, web technology etc. E-resources may include e-journals, e-discussion, data archives, e-mail, online chatting, etc.

Internet is now facilitating electronic communication, exchange of ideas and collaboration in research globally. It has made tremendous impact on the academic activities of researchers and students of higher education. It also creates an excellent platform on which the academic community can perform their activities in a rejuvenated manner. Library is no more a store house of information due to the over-whelming growth of published information; it has changed from traditional printed resources to electronic resources that now serve as a reference tool to search online data bases, e-journals, e-contents etc.

### **About Sri Padmavathi Mahila Visvavidyalayam (SPMVV)**

Sri Padmavathi Mahila Visvavidyalayam (SPMVV) University, made for women, was established in the year 1983. It draws on the great cultural traditions of the country as well as keeping in tune with changing times; it is a channel of employment and assures quality education in teaching as well as research.

It continues to produce graduates who are equipped to contribute to the intellectual, social, moral and material development of the societies in which they are to live, and to recognize that the development of contemporary societies reflects diversity alongside the consensus and acknowledgement of the past as well as concern for innovation.

It undertakes research, consultancy and other forms of service to local and regional communities, which will enrich our teaching and advance our quest for wisdom and truth.

As a developing university, it has around 3000 students in Arts, Science and Technology and offers 45 courses of Postgraduate, Diploma and Certificate courses throughout three schools. The courses offered in the university, research and extension activities undertaken reflect the commitment of the university to excellence in higher education. Every year, several national and international conferences, seminars, symposia and workshops are organized in various departments of the university. Several distinguished scholars from India and abroad visit the university to enrich its professional interaction. Many faculty members have been awarded fellowships to go abroad as well as their research projects being awarded.

The university library, centrally situated and easily accessible to all the departments on the campus, has steadily grown over the years and it has 80,000 documents as at today. It has 6 professionals, 1 office staff, 2 book bearers, 4 office bearers and 2 sweepers.

The library is a well established and well equipped central library with rich collection of books, printed journals and theses. It has separate computer lab and 15 computers installed to access internet and e-resources. Now, the library is also accessing more than 9000 e-journals through UGC INFONET., DELNET (Developing Library Network) and Sage publications.

The library is kept open for readers between 8.00 am to 6 pm on all working days. Transactions are from 10.00 am to 5 pm at the circulation counter, except on Sundays and Holidays, on which days it functions from 10.00 am to 4.00 pm for study and consultation purpose only.

### **Use of internet technology**

The internet is a relatively new phenomenon whose value is yet to be proven in academic research environment. Many scholars remain skeptical of its uses beyond entertainment and supply of general information. The internet first began in higher education as a way for researchers to communicate and share project data. As everyone knows, however, the internet is disorganized, volatile and dynamic. Web sites appear, disappear, move or mutate daily. The internet is difficult to search. It is even more difficult to search it well. Moreover, the information found on internet is often of uneven quality. The useful and useless co-exist in cyberspace much as they would and do at a flea market. Despite these drawbacks, the Internet is relatively fast; it is accessible twenty four hours a day, seven days a week. More and more students are doing their research exclusively based on the internet. This phenomenon is a sign of the times; however, it is important that students are aware that not everything is available on the internet. Thus, internet technology has been a great valuable information source in supporting academic and research activities.

### **LITERATURE REVIEW**

Tonta (1996) examines the use of networked information sources in scholarly communication. Networked information sources are defined broadly to cover documents and images stored on electronic network hosts; data files; news groups; list serves; online information services and electronic periodicals. He reports results of a survey to determine how heavily, if at all, networked information sources are cited in scholarly printed periodicals published in 1993 and 1994. Twenty seven printed periodicals, representing a wide range of subjects and the most influential periodicals in their fields were identified through the Science Citation Reports. Ninety seven articles were selected for further review and references; footnotes and bibliographies were checked for references to networked information sources. Only two articles were found to contain such references. He

concludes that, although networked information sources facilitate scholars' work to a great extent during the research process, they are yet to incorporate such sources in the bibliographies of their published articles. Chang and Perng (2001) carried out a research work to investigate the information requirements and search habit of graduate students at Tatung University, Taipei city, Taiwan. They found that 90% of the subjects conducted information searches using outside sources in addition to university library. They also reported, making extensive use of the internet in the recent past, mostly www-based databases, electronic journals and search engines. Dang (2003) emphasized the evaluation of the internet. He reported the examination of using the internet resources and the evaluation of their usefulness from the Chinese students.

Asemi (2005) reported in a survey, on the search habits of internet users at the Medical University of Isfahan, Iran to find the search requirements related to the use of internet information. It is revealed that the researches are getting quality information through internet. He concluded that library professionals may take initiatives to improve information searching on the internet process among the internet users and librarian may take initiatives to prepare list of subject websites that are useful for researchers. Mulla and Chandrasekhara (2006) made an attempt to explain the important aspects of internet. Internet based information resources are increasingly used for various purposes.

This study explained an insight into why people are interested and what is their attitude towards the use of internet based information resource and use of internet. Mulimani and Gudimani (2008) revealed that higher education institutions started subscribing electronic resources to meet their users' need. The paper discussed the impact of internet in Karnataka University library among the students and research scholars, and find out all the respondents are using online service in the library for research and academic purpose. They concluded that internet is one of the best media today for getting relevant information in time and all should be prepared to accept the challenge of the change of technology to remain in the race of modernization.

## Objectives

The major objectives of the study are:

1. To know the purpose for which faculty members are using internet in library;
2. To determine the frequency of internet usage;
3. To identify the search engines most visited often to find information;
4. To find out the problems faced by the faculty members while using internet in library;
5. To examine the satisfaction level of faculty members using internet in library;

6. To examine the usefulness of internet based information resources among faculty members;
7. To know the purpose for which faculty members are using Internet;
8. To ascertain the faculty members preferred search engine;
9. To determine the purpose and utilization of the electronic resources by faculty members;
10. To know how much time is spent in using internet;
11. To determine the usefulness of internet based information resources and;
12. Find out the problem faced by the faculty members while browsing internet based information resources.

## Scope

SPMVV, Tirupati has 21 teaching departments under humanities, sciences and technology. It consists of faculty members, research scholars and students. The investigator found it difficult to conduct the survey of all categories of users of the library. Most of the senior faculty members are very busy with their class work, research projects, administration works and guiding of research scholars. So in this study only five faculty members have been considered for the survey who browse internet in library to up-date themselves.

## METHODOLOGY

In this paper, an attempt has been made to analyze and interpret the data collected on the use of internet by faculty members of SPMVV University Library, Tirupati. For this purpose, a well structured questionnaire was prepared and distributed among 120 faculty members from 5 faculties. Among them 114 respondents returned the duly completed questionnaires. The collected data were analyzed by using SPSS and presented in the form of table and pie chart.

### Analysis of data

#### Sample profiles

**Age:** A majority (38%) of the respondents are from middle age group (26 to 35 yrs), and less than one third (30%) of the respondents are from older age group (more than 35 years); while the rest 32% of the respondents belong to younger age group (up to 25 years age group) (Table 1).

Majid and Abajova (1999) report the results of a study, undertaken at International Islamic University Malaysia, to investigate the relationship between computer literacy of academic staff and their use of electronic information sources. The impact of other factors such as age, gender and educational background on the use of electronic information sources was also investigated. A statistically significant relationship was found between computer literacy and the use of electronic information sources and services. The study reveals that computer literature academics use electronic information sources more frequently.

**Faculty:** More than one third (35%) of the respondents are from faculty of management sciences and around one fourth (25%) of

**Table 1.** Age group.

| Age group (years) | Percentage (%) |
|-------------------|----------------|
| Below 25          | 32             |
| 26-35             | 38             |
| 35 and above      | 30             |
| Total             | 100            |

**Table 2.** Faculty of respondents.

| Faculty                    | Percentage (%) |
|----------------------------|----------------|
| Management Sciences        | 35             |
| Engineering and Technology | 25             |
| Pharmaceutical Sciences    | 19             |
| Biological Sciences        | 13             |
| Social Sciences            | 8              |
| Total                      | 100            |

**Table 3.** Purpose of using internet.

| Purpose                           | Percentage (%) |
|-----------------------------------|----------------|
| E-mail                            | 30             |
| Access of e-resources             | 28             |
| Search general information        | 26             |
| Teaching and research information | 16             |
| Total                             | 100            |

the respondents are from engineering faculty; while 19% of the respondents are from pharmaceutical sciences, 13% of the respondents are from the faculty of biological sciences and the rest (8%) of the respondents are from social sciences (Table 2).

## RESULTS

The data obtained from a survey of the users of internet facilities in the university library are analyzed and presented as follows:

### Purpose of using internet

Less than one third (30%) of the respondents are using internet for e-mail purpose, and more than one fourth (28%) of the respondents are using internet for assessing of e-resources. More than one fourth (26%) of the respondents use internet for search of general information. The rest (16%) of the respondents use internet for teaching and research information (Table 3).

However, a similar study carried out by Lohar and Roopasree (2006) shows that 42.64% of the users are

**Table 4.** Developing habit of using internet.

| Developing habit              | Percentage (%) |
|-------------------------------|----------------|
| Self                          | 33             |
| Guide from friends/Colleagues | 28             |
| Library staff                 | 26             |
| External course               | 13             |
| Total                         | 100            |

**Table 5.** Frequency of internet using.

| Frequency    | Percentage (%) |
|--------------|----------------|
| Alternate    | 43             |
| Daily        | 41             |
| Weekly       | 10             |
| Fortnightly  | 4              |
| Occasionally | 2              |
| Total        | 100            |

using internet followed by CD-ROMs (23.26%), e-journals (13.95%) and e-books (9.3%). The results conform with the study conducted at Large South Western University Drnek (1998), which reveals that the most frequent response was from students who use the internet to conduct research and obtain additional information on topics of interest for class, followed by e-mail communication.

### Developing habit of using internet

One third (33%) of the respondents learn it by self instruction, whereas less than one third (28%) respondents learn it by the guidance of friends/colleagues. The rest of the respondents (26 and 13%) are learning it by library staff and external course consequently (Table 4).

### Frequency of internet use

Results show that nearly half (43%) of the respondents prefer to use internet in alternate day, more than one third (41%) of the respondents use it as a daily life routine, one tenth (10%) of the respondents use it weekly. Very few of the (4%) respondents use it fortnightly and least of the (2%) respondents use it occasionally (Table 5).

This result is also substantiated in the study conducted by Kumbar and Shirur (2002), at Sree Jayachamarajaendra College of Engineering, Mysore. It is revealed from the study that, about 75% of respondents use internet every day and once a week.

**Table 6.** Time spent in internet section.

| Time spent              | Percentage (%) |
|-------------------------|----------------|
| Less than 1 h in a week | 3              |
| 2-4 h in a week         | 24             |
| 5-6 h in a week         | 23             |
| 7-9 h in a week         | 40             |
| Total                   | 100            |

**Table 7.** Problems faced in internet section.

| Problem faced                 | Percentage (%) |
|-------------------------------|----------------|
| Slow access speed/Downloading | 36             |
| Less opening time             | 20             |
| Lack of guidance              | 3              |
| Lack of printing facility     | 11             |
| Finding relevant information  | 30             |
| Total                         | 100            |

**Table 8.** Preference of using search engines.

| Search engine | Percentage (%) |
|---------------|----------------|
| Google        | 46             |
| Yahoo         | 30             |
| Alta Vista    | 10             |
| MSN           | 9              |
| Others        | 5              |
| Total         | 100            |

### Time spent in internet section

More than one third (40%) of the respondents access internet 7 to 9 h in a week and one third (33%) of the respondents spend 5 to 6 h in a week; and another one fourth of the respondents access it 2 to 4 h in a week; very few (3%) respondents access it less than one hour in a week (Table 6).

### Problems faced in internet section

More than one third (36%) of the respondents are facing the problem of slow access, speed/downloading; almost one third (30%) of the respondents are facing the problem of finding relevant information. One fifth (20%) of the respondents are facing the problem of less opening time and almost one tenth (11%) of the respondents are faced with the problem of lack of printing facility; whereas few (3%) respondents are facing the problem of lack of guidance (Table 7).

**Table 9.** Satisfaction with internet facilities.

| Satisfaction level  | Percentage (%) |
|---------------------|----------------|
| Fully satisfied     | 40             |
| Partially satisfied | 52             |
| Least satisfied     | 8              |
| Total               | 100            |

### Preference of using search engines

Almost half (46%) of the respondents prefer to use Google Search Engine, almost one third (30%) use Yahoo followed by 10% of respondents who use Alta Vista and 9% who use MSN search Engine (Table 8).

The results of this study hold good with that of Jange (2004), stating that all the scholars are using search engines to find information on internet.

### Satisfaction with internet facilities

A majority (52%) of the respondents are partially satisfied with the internet service provided by the library followed by one fifth (40%) of respondents who are fully satisfied. The rest (8%) respondents are least satisfied (Table 9). Based on the analysis of the data, the following findings and suggestions are made to improve the usage of internet among the faculty members:

1. A majority of the respondents (30%) use internet for e-mail followed by 28% who use it to assess e-resources.
2. A majority of the respondents (43%) visit internet section in every alternate day followed by 41% of daily users.
3. Most of the respondents (46%) prefer Google as search engine followed by Yahoo and Alta Vista for searching information.
4. Slow access, speed/downloading is the major problem of 36% of the respondents followed by 30% of the respondents who find it difficult to get relevant information; 11% are facing the problem of lack of printing facility, 20% are facing the problem of less opening time and only 3% of the respondents are facing the problem of guidance from the library staff.
5. In the survey, it is noticed that 52% respondents are partially satisfied followed by 40% who are fully satisfied and 8% who are least satisfied.

### Conclusion

The internet provides a wealth of information and easy accessibility which makes it a truly global infrastructure for the new millennium. Emergence of internet and the fast growth of e-publications make the libraries as well as librarians and library staff to integrate information globally to provide the latest, widely spread required information

in a technical way. Nowadays, internet has a great impact on the academic environment. It is also playing a vital role in the field of higher education. The findings reveal that the faculty members are frequently using internet for academic purpose as well as keep themselves up-dated. The speed of accessibility/ downloading will create the interest to use internet more frequently. This study also helps the librarian to know the importance of internet in academic atmosphere. In order to make the internet more beneficial, the library staff who have acquired a good deal of efficiency in the collection, organization and retrieve of information should feel duty-bound to see that the users are able to obtain right information at the right time. The library services supplemented by internet services can be a great boon to the users in getting the relevant information. Our future study has two directions: one is by using Web 2.0 to service different user groups as found in Li-Ping (2011)'s studies, and the other one is to follow Del Giudice and Straub (2011) for studying what kind of library's IT investment works best at which stage of university development.

## SUGGESTIONS

Librarian must have to work as a knowledge master. He has to take reader towards knowledge and know what collection is available in the library as well as what to add to the collection. He has to know what else is available that is, databases, experts etc. and make flexible schedule like time-table.

Librarian has to know the curriculum frameworks as well as staff and students. Supporting the curriculum leads to strong library collection. He has to build a reading encouragement program. He has to connect the right book to the right student/research scholar/teacher.

University librarians and other senior professionals working in the libraries should be capable to do the work by using HTML and other languages. In addition, they should have the ability to work on OPAC, and emerging technologies to find quality online resources along with giving training to the users to make use of technological facilities available in the library.

To make use of internet more relevant and ultramodern there is need to have full text search engines for indexing and providing efficient access to various resources. It should be supported by web and FTP servers, high speed local networks and fast connections to the internet.

Based on the findings, the following suggestions have been made for maximum utilization of internet facilities to the faculty members of SPMVV, Tirupati.

1. A large number of internet users are partially satisfied with the internet section due to slow access, speed/

downloading of information. So firstly, university library should have internet with high speed, and latest configuration should be installed.

2. University also should make an arrangement to increase the opening time for the internet section of the library.

3. Library should provide printing facility to its users for them to take the print out of collected matters. Any problems like repairs must be speedy.

4. Library may subscribe some bibliographic databases and resources and provide access facility to internet users. It will help them to find relevant information very easily.

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