Use of internet based e-resources at Manipur University: a survey

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Describes a survey on the use of the electronic information focusing on the Internet services by the users of Manipur University Library. Also examines the utilization, purpose, difficulties and satisfaction level of users about Internet based e-resource services provided by the library. Finds that low speed internet access, erratic power supply and lack of required full text journals are problems with regard to the use of internet based e-resource.

Introduction

The internet is a global system of interconnected computer networks that promotes free flow of information by packet switching using the standardized internet protocol suite. It is a network of networks that consists of millions of private and public, academic, business, and government networks of local to global scope that are linked by copper wires, fiber-optic cables, and wireless connections technologies.

The internet provides various information resources and services, such as electronic mail, online chat, electronic transaction, bulletin board, file transfer and file sharing, online newspaper, online gaming, and the inter-linked hypertext documents and other resources of the World Wide Web. Keeping in view, the sophisticated and multidimensional features of internet an attempt has been made to assess of Manipur University library users. The data collected has been analysed statistically using software packages like SPSS and Microsoft Excel.

Previous studies

Faculty members, research scholars as well as students have conducted significance studies on the use of internet and e-resources. A survey of 229 users of City Central Library, Gulbarga on revealed the need to undertake regular awareness programmes for maximum utilization of resources\textsuperscript{1}. Another study conducted by Zhang\textsuperscript{2} on scholarly use of Internet based electronic resources showed that e-mail was the most frequently used tools. All respondents indicated that they used e-mail at least once in a week, while 93\% of them used it almost everyday and nearly 94\% of respondents used web browsers at least once in a week. A case study undertaken by Kumar and Reddy\textsuperscript{3} based on 3117 users community of NIT library, Warangal revealed an increasing use of the digital library services. In a study of users opinion conducted by Naushad Ali and Hasan\textsuperscript{4} on the use of electronic services at IIT Library, Delhi, the authors show that majority of the users are unaware of various electronic services available in the library and also observed that use of electronic services is unsophisticated, centering on e-mail and chatting. An analytical study of choukhande and Kumar\textsuperscript{5} on the information needs and use pattern of faculty members and research scholars was conducted at Amravati University. The study reported that faculty members and research scholars face difficulties in access to information because of multiple factors. A comparative study conducted by Biradar and Sampath Kumar\textsuperscript{6} on use Internet by physicists in Universities of Karnataka State described that the most common obstacles to the use of internet and web based sources by research scholars and faculty members are lack of internet facility and lack of training regarding the internet use. They also reported majority of research scholars and faculty members used internet for teaching and research work. In a user study, Kumbar et al.\textsuperscript{7} analysed the use of electronic resources by 70 research scholars in Central Food and Technological Research Institute (CFTRI), Mysore. The study showed many aspects on the use of electronic
It was revealed that majority of them use FSTA (Food Science Technology Abstracts) database and the users felt that their research work could have been improved upon by the use of electronic resources. Mulla and Chandrashekara, in a study on internet users observed that all users communities use internet as a useful source of information to satisfy their information needs. The study reveals the attitude of users towards searching of information on Internet. The authors also show that most of the internet users are moderately interested in searching for the information on internet.

**Manipur University: an overview**

The university encompasses 34 government colleges, 8 government aided colleges, 18 permanently affiliated private colleges, 7 private affiliated colleges and 6 permitted private colleges. In addition, the university has 25 postgraduate departments. The university library is located at the heart of the university as the nerve centre of academic and research activities of its about 2,264 registered users comprising 1,278 P.G. students, 500 research scholars, 136 teachers, 350 non-teaching staff and other unregistered users of the state. The library offers a collection of over 1,50,000 books, 280 printed journals plus above 4000 electronic journals, and is well supported by 30 internet node facilities and photocopy services. Collections of the library can also be browsed from different departments through campus network. The campus network covers all departments including library, administration, sports, audio-visual research centre and four different hostels. The number of nodes in the network is over 400 computers and is supported by 2Mbps-leased line Internet connection.

**Objectives of the study**

The objectives of the present study are to:

- To identify the use of internet,
- To know the purpose of internet use,
- To find the difficulties in browsing the internet based information resources; and
- To identify the user requirements.

**Methodology**

A structured questionnaire was designed for the survey, which was randomly distributed among 800 users of the library comprising of PG students, research scholars, teachers and other non-teaching staff members during April 2006 – April 2007 and 548 (68.5%) completed questionnaires were received. The questionnaire were used to obtain the needed data covering the objectives of the study that include: age, gender, category of users, the purpose of using the library, levels of internet use, purpose of internet use, the difficulties in accessing information, satisfaction level, facilities required by the users, the ease in retrieving the information needed, and finally their suggestions for overcoming any related problem.

In certain part of the analysis, mean deviations and standard deviations are calculated to ascertain the variations amongst the variables by using the formula computed below:

\[
\text{Mean Deviation} = x - \bar{x}
\]

Where

\[
x = \text{number of response}
\]

\[
\bar{x} = \text{mean of the responses}
\]

\[
\text{Standard Deviation} = \sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}
\]

Where

\[
\sum (x - \bar{x})^2 = \text{sum of the squares of mean deviations}
\]

**Data analysis**

**Sample characteristics**

To assess the prevailing conditions, availability of resources and other facilities, particularly of e-services on various aspects, 548 (five hundred and forty eight) members of the users community have been taken into account in the survey. Sample characteristics have been analysed to study the correlation, if any between demographic characteristics of the library users and various parameters of the survey.

As they are the direct consumers of services rendered, this contributory part of the study has been confined on users. Of the 548 users under consideration, 296 (54.01%) are males while the remaining 252 (45.99%) are females. As stated above the users community comprising of both male and female users includes of faculty members (66; 12.04%), researchers (146;
The male representatives, as the table reveals, is found to be more than their female counterparts in all the group of users except in the case of researchers, for which the female representatives being 31.7% while its male representatives is only 22.3% as calculated from the total of the two category.

Regarding age factors, majority of the users are found to be below 30 years (400; 72.99%), users belonging to the age group 30–50 years are accounted as 140 (25.55%) in which no administrators/officials is represented. Also the table shows that only 8 (1.46%) of the faculty members are above 50 years.

**Purpose of visiting MU library**

It is evident from Table 2 that 492(89.8%) of respondents visit library for issue/return of reading materials, 398(72.6%) of users to access internet, 350(63.9%) to avail reference/ reprographic/ other services, 202 (36.9 %) to browse e-journals. Only 192(35.0%) users go to the library for browsing MU library catalogue/ union catalogue.

Thus the visit to the library and its use indicates that most of the users consult the library for getting reading materials and are found to be below 30 years.
materials issued/returned, accessing internet, and other purposes.

**Use of internet**

The questionnaire consists of several questions for the users as well as the non-users of the internet. Here an internet user is defined as a person who has used internet facilities for research, teaching or just for general and even for e-mail purpose. Based on their response, the percentage of internet use among the academic community could be determined. It is evident from Table 3 that majority of the respondents are internet users. The table also shows different degrees of using internet among the respondents. It has been noticed that 30.7% of respondents use internet to little extent, 28.8% to some extent and 13.1% of respondents use internet to full extent. However, 27.4% of respondents are non-users of internet.

**Purpose of internet use**

To identify the purpose of internet use by the academic community of Manipur University, the survey respondents were asked to indicate the purpose of internet use. The major purposes of internet use as responded are given in Table 4.

The most important reason why users of various categories in the university use internet is to download their desired information from different web-based resources and websites. Use of the same for different e-
The purpose of Internet use by the respondents of the present study is similar to the previous studies conducted by Zhang9, Naushad Ali and Hasan10, Biradar and Sampathkumar11, and Mulla and Chandrashekara12. The study found majority of respondents used e-mail. The analysis directs the necessity of awareness programme on UGC-Infonet, INFLIBNET databases and document delivery services.

Purpose of internet use (gender-wise)

Study also made an attempt to know the purpose of use of internet by male and female respondents and to know how the use of internet varies among male and female respondents. The gender-wise distribution of analysed data for the purpose of internet use is given in Table 5.

As the table shows, similarities have been established between both gender of users concerning their purpose of using internet on the following aspects:

- For e-mail
- For downloading desired information
- For updating knowledge through web

On the other hand, browsing UGC-Infonet e-resources

Table 6 — Difficulties in accessing information

<table>
<thead>
<tr>
<th>Details</th>
<th>Response</th>
<th>Percentage</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of knowledge in computer handling</td>
<td>273</td>
<td>49.82</td>
<td>-28.86</td>
</tr>
<tr>
<td>Lack of knowledge in browsing e-journal</td>
<td>294</td>
<td>53.65</td>
<td>-7.86</td>
</tr>
<tr>
<td>Limitation of Internet access speed</td>
<td>305</td>
<td>55.66</td>
<td>3.14</td>
</tr>
<tr>
<td>Limitation of online full-text journal articles</td>
<td>323</td>
<td>58.94</td>
<td>21.14</td>
</tr>
<tr>
<td>Unfriendly library staff</td>
<td>292</td>
<td>53.28</td>
<td>-9.86</td>
</tr>
<tr>
<td>Lack of power supply</td>
<td>327</td>
<td>59.67</td>
<td>25.14</td>
</tr>
<tr>
<td>Untraceable of document</td>
<td>299</td>
<td>54.56</td>
<td>-2.86</td>
</tr>
</tbody>
</table>

$x = 301.86 \quad \sigma = 17.27$

Table 7 — Facilities required by the users

<table>
<thead>
<tr>
<th>Detail of facilities</th>
<th>Response</th>
<th>Percentage</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>More number of computers of latest configuration</td>
<td>446</td>
<td>81.39</td>
<td>24.12</td>
</tr>
<tr>
<td>Wider &amp; well light space for seating accommodation</td>
<td>437</td>
<td>79.74</td>
<td>15.12</td>
</tr>
<tr>
<td>Faster internet access</td>
<td>449</td>
<td>81.93</td>
<td>27.12</td>
</tr>
<tr>
<td>E-resources downloading and printing facilities</td>
<td>428</td>
<td>78.10</td>
<td>6.12</td>
</tr>
<tr>
<td>Frequent training facilities for the end users</td>
<td>426</td>
<td>77.74</td>
<td>4.12</td>
</tr>
<tr>
<td>Efficient &amp; effective campus network</td>
<td>422</td>
<td>77.01</td>
<td>0.12</td>
</tr>
<tr>
<td>Resource sharing (Technical, Expertise, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with other agencies in the state</td>
<td>386</td>
<td>70.44</td>
<td>-35.88</td>
</tr>
<tr>
<td>Wireless network facilities in MU campus</td>
<td>381</td>
<td>69.53</td>
<td>-40.88</td>
</tr>
</tbody>
</table>

$x = 421.88 \quad \sigma = 23.87$
and visiting different websites of different agencies are relatively higher amongst the male respondents than their female counterparts. As mentioned in the previous section, use of internet for the remaining purposes is almost negligible in case of both genders.

**Difficulties faced in accessing information**

The difficulties in accessing information from the internet are shown in Table 6.

“Lack of power supply”, “Limitation of online full-text Journal articles”, and “Limitation of Internet access speed” are the three major difficulties as encountered by the users community in accessing to information. It can be seen from the analysis that the major difficulties in accessing electronic journals are due to irregular power supply, slow speed of internet connectivity and low number of electronic journals subscribed.

**Users’ requirements**

The analysis of users’ requirements regarding facilities of MU Library is given in Table 7.

A large number of users have expressed the need to increase the speed of internet access. Another of the users is to increase the number of computers of latest configuration in the library. They also require wider and well-lit space for seating, more e-resources for downloading, printing facilities and frequent training etc.

**Conclusion**

The faculty, researchers, administrators/officials, students and other use internet as a source of information. Erratic power supply and low speed internet access are general problems related to internet based e-resources and the same have been found in this study as well. In addition, limited full-text journals availability has been reported. Although it is well known that internet is very useful source of information, adequate steps need to be taken to provide the requisite basic infrastructure for fast internet access followed by resource availability and training.

**References**