### ASSESSMENT AND EVALUATION OF USAGE OF UGC INFONET E-JOURNALS CONSORTIUM IN NORTH EAST UNIVERSITIES

Prem Chand Th Satyabati Devi Suresh K Chauhan

#### Abstract

Libraries, faced with declining budgets, increasing subscription prices have found themselves unable to purchase all publications and materials that their users would generally expect to have. To compensate for this, there is shift to subscribe the journals by other models and methods. Library consortia are one of the most effective means for libraries to subscribe to E-journals. University libraries in India are accessing e-journal under UGC-INFONET E-journal consortium. This facility has also been extended to libraries in North Eastern region. This paper reflects on the growing importance of usage statistics of electronic journals, their increasing use, and in particular universities in North East region It highlights the current usage of various e-resources accessed by the users of different universities located in North East region.

**Keywords:** Library consortia; UGC-INFONET; E-journal; INFLIBNET; Usage statistics.

#### 1. Introduction

In recent years, there has been a surge in the number of electronic journals available to academic libraries. More titles are becoming available in e- form via publishers and subscription agents. Libraries are not in position to subscribe to the foreign journals due to high price, the result of which is steep decline in the library resources of Indian libraries causing a very wide gap between what is available and what is needed and affordable. Academic libraries are forced to cancel subscriptions as a result of the increasing subscriptions prices. There are instances of well-established Indian Universities canceling substantially or completely their foreign journal subscriptions for reasons of affordability. Under such circumstances, the timely launch of UGC- INFONET E-journal consortium is a boon to academic libraries in India. The consortium facilitates access to e-journals to academic libraries and signed agreement with different publishers and access were provided under multiple sites licensing to hundred universities in different phases. Substantial amount have been spent to subscribe to various e-resources. Except Mizoram University where network infrastructure has to be established, nine other universities in north eastern region were given access to e-journals under INFLIBNET consortium. INFLIBNET is monitoring the usage pattern of these universities, which is not very encouraging. There is the need to maximize the use of available electronic resources to justify the financial investment involved in the subscription of e-resources under consortium in academic libraries.

<sup>4&</sup>lt;sup>th</sup> Convention PLANNER -2006, Mizoram Univ., Aizawl, 09-10 November, 2006

<sup>©</sup> INFLIBNET Centre, Ahmedabad

### 2. Universities and colleges in North Eastern States:

The North-eastern states comprises of Eight states including Sikkim. There are 14 universities in North East. Assam alone has 6 universities followed by Manipur with 2 universities and rest of the states have one university each. North East states have 541 colleges making 4.5% of the total number of colleges in the country. Assam has 328 colleges followed by Manipur (65), Meghalaya (47) and Nagaland (35). Arunachal Pradesh and Sikkim have least number of colleges, that is, 8 and 7 respectively. The student enrolment in the states of the region per colleges is about 529 while it is 653 in case of mainland. The student enrolment in higher education in the states varies rather widely. The highest enrolment is in Assam followed by Manipur and Tripura. The states in Arunachal Pradesh and Sikkim have the least number of students enrolled in higher education. The proportion of women enrolment in higher education in the country is 35.45%. The situation in NE states is slightly different. The states like Tripura, Meghalaya and Sikkim have more than 40% women enrolment. Mizoram which has the highest literacy rate next to Kerala in the country and highest in the region has 43% women enrolment. The participation in higher education is highest in Manipur (9.42%), which is remarkable when compared with the overall participation rate (6.9%) of the country.

However there are 14 universities in North East states but only ten universities are covered under UGC- Infonet E-journal consortium. The access to e-resources to colleges are in pipeline and likely to be extended by January 2007.

#### 3. Network Infrastructures

In a library, be it digital or analog, the essential transaction is the same: a user interacts with content. But richer interaction is possible within the digital environment not only as more content is put within reach of the user, but also as more tools and services are put directly in the hands of the user. These include the ability to search, refer, validate, integrate, create, customize and publish. Students, teachers, faculty, and those pursuing continuing education will connect, browse, search and save the required article and enhance and keep themselves update in their subject. Therefore establishing network infrastructure not only in library but also in campus LAN is paramount component to ensure access to e-resources. Under UGC- INFONET programme, which aims to establish network in universities, INFLIBNET has extended different kind of connectivity to universities located in north east states. Based on location, number of students and teachers, CCMC has recommended different type of connectivity to ten universities, which comes under the purview of UGC. Initially, all the universities were given (SCPC) VSAT with minimum 256 KBPS bandwidth which is not sufficient to use e-resources . Connectivity has been upgraded to NEHU, Nagaland and Mizoram University to 1 mbps and 512 kbps respectively. The type of connectivity and the bandwidth provided to the universities are listed below.

SI No.	Name of the University	Types of connectivity and bandwidth
1.	Arunachal University, Arunachal	SCPC 256 Kbps
2.	Assam Univerity, Silchar Assam	SCPC 512 Kbps
3.	Dibrugarh University, Dibrugarh, Assam	SCPC 256 Kbps
4.	Gauhati University, Guwahati, Assam	LL 512 Kbps

SI No.	Name of the University	Types of connectivity and bandwidth
5.	Manipur University, Manipur, Imphal	SCPC 256 Kbps
6.	North Eastern Hill University, Shillong	LL, 1Mbps
7.	Tezpur University, Assam	SCPC 256 Kbps
8.	Tripura University, Tripura	SCPC 256 Kbps
9	Mizoram Univeraity	BB 512 Kbps
10	Nagaland University	SCPC 512 Kbps

SCPC: Single Channel Per Carrier; LL: Leased Line; BB= Broad band

#### 4. Usage Statistics

In networked information environment, the ability to monitor the traffic and usage is complex issue. The access is based on IP wherein multiple users can search the site and download the content. Most electronic resources available through consortia are served from the server maintained and controlled by publishers, aggregator and vendor.

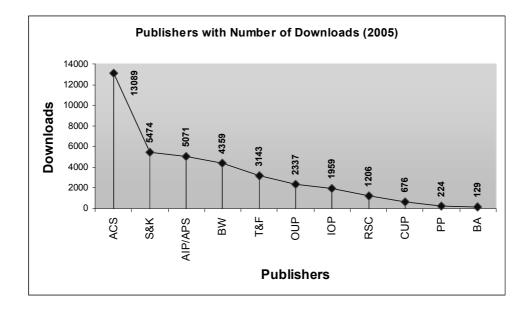
It has been difficult and complex to obtain reliable data from publishers. This has created problems in obtaining accurate use statistics for E- journals. With new standards like COUNTER has made librarians job easy. COUNTER stands for (Counting Online Usage of Networked Electronic Resources) is an international initiative designed to serve librarians, publishers and intermediaries by facilitating the recording and exchange of online usage statistics. Most of the publishers content subscribed under UGC- INFONET e- journal consortium is counter complaint. INFLIBNET has been regularly monitoring and compiling the data of e-resources accessed by member institution of consortia. There are eight universities in the North-east that have given access to e-resources under UGC-Infonet e-journals consortium. Out of the ten universities only four Universities are in the 1st phase and getting access to most of the journals of the consortia and the remaining 6 universities are in the 2nd and 3rd phase and getting access to limited number of journals. Recently INFLIBNET has included Mizoram University in the list of consortia member and extended the access to CUP journals and Encyclopedia Britannica. The paper highlights the data of nine universities in North East region for January–December 2005

The usage pattern of various e-resources during the year 2005 in nine universities is given below.											

Name University	CUP	IOP	RSC	oup	T&F	ACS	BW	S&K	PP	AIP/APS	BA
NEHU, Shillong	103	362	526	988	722	3269	2119	1187	71	595	40
Gauhati University	2	106	24	38	20	195	101	129	57	184	17
Manipur University	129	338	95	202	188	301	740	1204	45	428	3

Name University	CUP	IOP	RSC	OUP	T&F	ACS	BW	S&K	PP	AIP/APS	BA
Assam University	84	22	18	125	263	144	672	666	NA	123	10
Dibrugarh University	46	115	26	58	1089	368	127	767	NA	539	6
Arunachal University	177	0	0	103	16	0	109	114	NA	0	1
Tezpur University	126	973	500	463	811	5819	453	1067	51	1942	50
Tripura University	7	43	14	23	25	2982	35	340	NA	1260	1
Nagaland University	2	0	3	337	9	11	3	0-	NA	0	1
Total:	676	1959	1206	2337	3143	13089	4359	5474	224	5071	129

*Fig: 1 Table showing the total no. of downloads from different publisher for the year-2005 by the university* 





\***NA-Statistics not available** \*CUP-Cambridge University Press, IOP-Institute of Physics, RSC-Royal Society of Chemistry, OUP-Oxford University press, T&F-Taylor & Francis, ACS-American Chemical Society, BW-Blackwell, S&K-Springer & Kluwer, PP- Portland press, AIP/APS-American Institute of Physics/American Physical Society, BA-Biological Abstract

From the above table it is found that the highest usage is from American Chemical Society (ACS) the second from Springer and the third from AIP/APS (American Institute of Physics / American Physical Society.

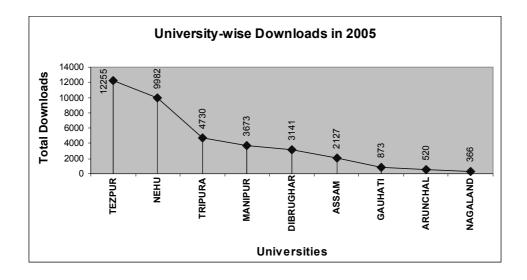
Apart from the above products there are some products, which are provided only to universities covered under 1st phase. These resources are:

Name of the University	so	AR	Elsevier	Jstor	Nature	Emerald
NEHU, Shillong	202	360	169	1827	NA	494
Gauhati University	0	150	91	111	0	NA
Manipur University	0	145	30	NP	37	178
Tezpur University	1748	244	2678	NP	556	NP
Total:	1950	899	2968	1938	593	672

Fig: 3 Table showing the total no. of downloads for the year 2005

\*NA -Statistics not available, NP- Not Provided ; \*SO- Science Online, AR- Annual Review

The highest usage statistics among the universities in the North east is analyzed from the above table and is shown below.



*Fig: 3 Graphs showing the total no. of downloads of each university for the year 2005 from top to bottom* 

It is observed that the usage is highest in Tezpur University has which is very surprising. Tejpur has only 256 Kbps connectivity under UGC- INFONET, but the usage of this university is astonishing. We have compiled the usage statistics of all the universities, which are in the 1st phase and 2nd Phase

and found that out of the 100 university Tezpur is in the 28th position accessing a total of 17,841 full texts from all the publishers and NEHU in the 36th position with 13,034. The remaining Universities Tripura University (4730) 64th, Manipur University (4063) 68th, Dibrugarh University (3141) 73rd, Assam University (2127) 84th Gauhati University (1225) 88th and Arunachal University (520) 97th and Nagaland University with 366 downloads at 99th position where the usage is very low. This shows that there is a problem in the access or lack of awareness among the users.

# 5. Conclusion

In the era of digital libraries, Web-based electronic databases have become important resources for education and research, providing functionality and ease of use superior to print products. Analysis of usage of such online systems can provide valuable information on user behavior, and on usage of electronic information in general. Furthermore, the findings can be used to improve effectiveness of these electronic systems and identify areas for improvement, ranging from user interface and functionality to documentation and product training. Based on usage compiled for the year 2005, it was observed that the resources are not effectively beeing used by the users. There are many factor of low usage and one of the most important factor is connecttivity. The present connectivity of 256 is not enough to utilize the benefit of e-journals offered under INFLIBNET consortium. In order to increase the usage, minimum bandwidth and to justify the access, it is necessary to increase the bandwidth to all the universities to 1 mbps.

## 6. Acknowledgement

The authors of the paper profoundly thank Acting Director of the Centre for his constant encouragements and support during the writing of this paper

### References

- 1. Prem Chand and Murthy, T A V and Chandel, A S (2005): Usage of electronic journals under UGC INFONET E-journal consortium in North Eastern University libraries. PLANNER-05. Assam University, Silchar. 2005. pp- 417-425
- 2. Ch.Ibohal Singh and Th. Khomdon Singh (2003): IT Applications in University Libraries in North East India: A Study. PLANNER-2003 NEHU, Shillong.pp 39-44.
- 3. Perpetua S. Dadzie, "Electronic resources: access and usage at Ashesi University College" downloaded on 9th July, 2006
- 4. Thomas A. Peters, "What's the use? The value of e-resource usage statistics" downloaded on 13th July, 2006 from http://www.emeraldinsight.com/
- 5. Summary of UGC-Infonet E-Journals consortium prepared by Informatics Division of INFLIBNET Centre.
- 6. www.inflibnet.ac.in