

# Usage Trends of External Storage Media in N-List E-Resources by Select Degree Colleges Affiliated to Panjab University, Chandigarh: A Comparative Analysis

*Shivani Kaushal<sup>1,\*</sup>, Rupak Chakravarty<sup>2</sup>*

<sup>1</sup>Librarian, Goswami Ganesh Dutta Sanatam Dharma College, Kheri Gurna, Banur, Patiala, Punjab, India

<sup>2</sup>Department of Library and Information Science, Panjab University, Chandigarh, India

## **Abstract**

*This study analyses the Usage trends in external storage media for N-LIST E-resources among the student and faculty members provided by the various select Degree Colleges affiliated to Panjab University, Chandigarh. A questionnaire method was used as a tool for collection of data from the 32 select degree colleges in Punjab and Chandigarh. From the 513 respondents, the total data was collected from the 466 respondents. Therefore, the overall response rate is 90.84%. Out of 466 respondents, the total 286 are faculty and students' users' respondents and 180 are faculty and students' non-users respondents. After the processing of the data, the related statistical test has been implied and the recommendations have been drawn thereof. It will also help in analyzing the usage trends while retrieving the information from the N-LIST E-resources.*

**Keywords:** *Bibliographical databases, consortia, degree colleges of Panjab University, e-books, e-journals, external storage media, n-list, statistical analysis*

**\*Author for Correspondence** E-mail: shivanijalota@gmail.com

## **INTRODUCTION**

With the advent of resource sharing, the Library Consortia have brought economy, efficiency and equality in information availability and its usage. Through Library Consortia, the gap between information resource-rich libraries and resource-deficient libraries is expected to be bridged. Although, there are many consortia in India like UGC-INFONET Digital Library Consortium, INDEST Consortia, CSIR Consortia etc which have already gained the popularity in India. Yet, N-LIST is one of such consortia which helps to bridge this gap and provides access to the E-resources to its users.

## **N-LIST: AN INITIATIVE OF NMEICT**

The National Mission on Education through Information and Communication Technology (NMEICT) was launched on 3<sup>rd</sup> Feb, 2009. It initiated a project called "National Library and Information Services Infrastructure for Scholarly Content (N-LIST)", popularly known as N-LIST which was formally

launched by Shri Kapil Sibal, Union Minister for Human Resource Development, on 4<sup>th</sup> May, 2010. The N-LIST Project is being jointly executed by the (University Grants Commission- Information Network) UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, Indian Institute of Technology (IIT) Delhi. The project provides the cross-subscription to e-resources subscribed by the two Consortia, i.e. subscription to INDEST-AICTE resources for universities and UGC-INFONET resources for technical institutions; and the access to selected e-resources to colleges.

The Faculty and the students from the colleges covered under section 12B/2F of UGC Act are eligible to access e-resources through the N-LIST project. These colleges are required to register themselves on the N-LIST Website. During the last three years, the collection has increased from 2,100 to 6,000 e-journals and from 51,000 to 1, 00,000 e-books (ref. 2 homepage), subscribed under the N-LIST Project.

## REVIEW OF LITERATURE

Akinola SF [1] obtained the results from her study which revealed that majority of the respondents (35.4%) from the University of Ibadan sought information to update knowledge. It was also found that the respondents also sought information for writing of papers or books, reading, and for preparing class lectures. The study on Information seeking behaviour of Social Science Faculty was done by Bhardwaj R K, Walia P K [2] which indicates the pen-drive is most preferred as an external storage device due to its large storage capacity as well as convenience of usage was found to be the most preferred by 50.20% participants database appears to be the most suitable usage pattern for the University faculty members. Present study indicates that the main reasons for not using N-LIST E-resources are due to 'lack of awareness' by student non-users respondents. A similar study by Chattwal A [3] indicates that reasons of non-use of UGC-INFONET resources by the Faculty Members and research scholars was 59.50% of respondents attributed the reason as lack of training/orientation. The other reason included 28.50% of respondents attributed the reasons as 'lack of awareness' whereas 10.50% opted 'Aware but internet connection is not proper'. The authors concluded that the use was marginal and the scientist in the Mysore University Campus need constant guidance and training to maximise the use of UGC-INFONET e-resources. The similar study by Kumbar D, Chikkamanju, Kumar GK [4] analyse the rating of the quality of the Electronic Resources in the St. Stephens College library, where majority of the respondents (52.8%) agreed that the 'Quality of the N-LIST e-resources are excellent' while 39.68% of the respondents rated the quality of the N-LIST e-resources were good. The authors also concluded that most of the respondents rated N-LIST e-resources very good. The similar study by Krejice RV, Morgan DW [5] identified the level of satisfaction of student respondents about the information retrieved through the N-LIST E-resources of the Tumkur University. The study reveals that 46.86% opined that the aided college students are extremely satisfied with

the information retrieved through the N-LIST E-resources.

## OBJECTIVES OF THE STUDY

The present study is an attempt to find out the accessibility of N-LIST E-resources and trends used by the faculty and students while retrieving the information.

The study was conducted with the following objectives:-

To analyze the trends of external storage media amongst the faculty and student users of the select Degree Colleges of Panjab University, Chandigarh.

## METHODOLOGY AND SCOPE OF THE STUDY

A Survey method has been implemented to meet the objectives of the study. The author has collected the data through questionnaire method from the select Degree Colleges which are affiliated to Panjab University. For collecting the data, Proportionate Random Stratified Sampling [6] have been applied in the member colleges on the Faculty and students. The data have been collected from the 144 faculty users and 142 student users. In 144 faculty users, 114 are males and 30 are females whereas 142 student users, 33 are males and 109 are females. The statistical T-test has been applied to approve the null or alternate hypothesis. This method facilitates yearly accumulation of information from the member colleges in various settings under parameters relevant to the study.

### Scope and Locale of the Study

This study is confined to 32 member colleges. These member colleges are located in Punjab and Chandigarh and are affiliated to Panjab University only.

### Time period of the study

The time period of the study will be from Jan 2010 to May 2015.

## DATA ANALYSIS

### External Storage Media by Faculty Respondents

**Table 1: (Faculty) External Storage Media.**

| Sr. No. | Frequency/Storage Media | Always         | Frequently     | Sometimes      | Seldom         | Never         | Total            |
|---------|-------------------------|----------------|----------------|----------------|----------------|---------------|------------------|
|         |                         | N (%)          | N (%)          | N (%)          | N (%)          | N (%)         |                  |
| 1.      | Pen-Derive              | 59<br>(40.97%) | 37<br>(25.69%) | 33<br>(22.92%) | 11<br>(7.64%)  | 4<br>(2.78%)  | 144<br>(100.00%) |
| 2.      | CD/DVD                  | 29<br>(20.14%) | 30<br>(20.83%) | 52<br>(36.11%) | 19<br>(13.19%) | 14<br>(9.72%) | 144<br>(100.00%) |
| 3.      | E-Mail/Online Storage   | 36<br>(25.00%) | 53<br>(36.81%) | 32<br>(22.22%) | 14<br>(9.72%)  | 9<br>(6.25%)  | 144<br>(100.00%) |
| 4.      | E-Book Reader           | 12<br>(8.33%)  | 46<br>(31.94%) | 74<br>(51.39%) | 4<br>(2.78%)   | 8<br>(5.56%)  | 144<br>(100.00%) |
| 5.      | Mobile/Tablets          | 15<br>(10.42%) | 48<br>(33.33%) | 64<br>(44.44%) | 4<br>(2.78%)   | 13<br>(9.03%) | 144<br>(100.00%) |

**Table 2: (Student) External Storage Media.**

| Sr. No. | Frequency/Storage Media | Always         | Frequently     | Sometimes      | Seldom         | Never          | Total         |
|---------|-------------------------|----------------|----------------|----------------|----------------|----------------|---------------|
|         |                         | N (%)          | N (%)          | N (%)          | N (%)          | N (%)          |               |
| 1.      | Pen-Derive              | 49<br>(34.51%) | 29<br>(20.42%) | 39<br>(27.46%) | 9<br>(6.34%)   | 16<br>(11.27%) | 142 (100.00%) |
| 2.      | CD/DVD                  | 35<br>(24.65%) | 9<br>(6.34%)   | 50<br>(35.21%) | 30<br>(21.13%) | 18<br>(12.68%) | 142 (100.00%) |
| 3.      | E-Mail/Online Storage   | 41<br>(28.87%) | 25<br>(17.61%) | 28<br>(19.72%) | 12<br>(8.45%)  | 36<br>(25.35%) | 142 (100.00%) |
| 4.      | E-Book Reader           | 4<br>(2.82%)   | 19<br>(13.38%) | 91<br>(64.08%) | 2<br>(1.41%)   | 26<br>(18.31%) | 142 (100.00%) |
| 5.      | Mobile/Tablets          | 13<br>(9.15%)  | 31<br>(21.83%) | 50<br>(35.21%) | 2<br>(1.41%)   | 46<br>(32.39%) | 142 (100.00%) |

For determining the usage criteria, the researcher asked the respondents about their preferences regarding external storage media.

From combining the scores of ‘Always’ (A) and ‘Frequently’ (F), it was evinced that the majority of the faculty respondents i.e. 66.66% (A= 40.97% + F= 25.69%) prefer pen-drive followed by 61.81% (A= 25% + F= 36.81%) of respondents who use e-mail as an external storage media. It was revealed that 40.27% (A=8.33% + F=31.94%) and 43.75% (A= 10.42% + F= 33.33%) of faculty respondents use e-book readers and Mobiles/tablets as an external storage media.

From the scores of ‘Sometimes’, it was perceived that the majority of the faculty respondents, i.e., 51.39% preferred ‘E-book Reader’ the most followed by 44.44% of respondents who preferred ‘Mobiles/Tablets’ for storing the retrieved data. While 36.11% and 22.92% uses ‘CD/DVD’ and ‘Pen-drives’ for storing the information, respectively.

From the scores of ‘Never’ and ‘Seldom’, it has been observed that the 2.78% of respondents least preferred the Pen-drives, Mobiles/Tablets and E-Book Reader external

storage media device.13.19% of respondents very rarely prefer CD/DVD as external storage media due to virus or malware problems.

But it is thus, comprehended from the above data that the majority of faculty respondents i.e. 66.66% (A= 40.97% + F= 25.69%) prefer **pen-derive** the most as an external storage media whereas 51.39% sometimes prefer E-Book reader as external storage media (Table 1).

### External Storage Media by Student Respondents

For determining the usage criteria, the researcher asked the respondents about their preferences regarding external storage media (Table 2).

From combining the scores of ‘Always’ (A) and ‘Frequently’ (F), it was evinced that the majority of the student respondents i.e. 54.93% (A= 34.51% + F= 20.42%) prefer pen-drive followed by 46.48% (A=28.87% + F=17.61%) of respondents who use e-mail as an external storage media. It was revealed that 16.20% (A=2.82% + F=13.38 %) and30.98% (A=9.15% + F=21.83%) of student respondents use e-book readers and Mobiles/tablets as an external storage media.

From the scores of 'Sometimes', it was perceived that the majority of the student respondents i.e. 64.08% preferred 'E-book Reader' the most followed by 35.21% of respondents who preferred 'Mobiles/Tablets' and 'CD/DVD' for storing the retrieved data. While 27.46% uses for external storing the information.

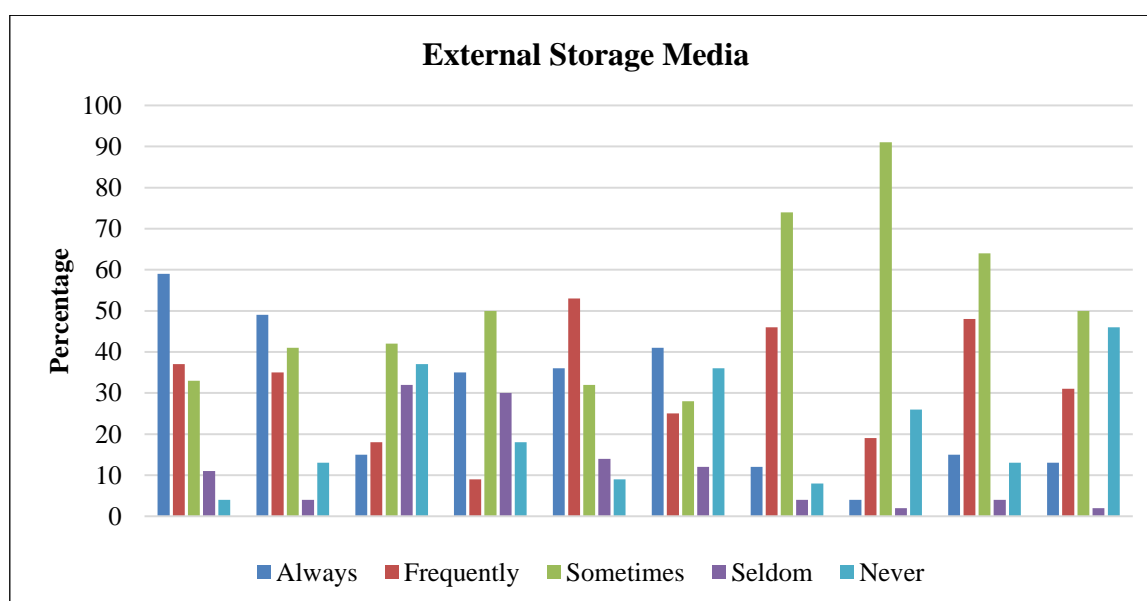
From the scores of 'Never' and 'Seldom', it was perceived that 32.39% have never preferred Mobiles/Tablets as an external storage media followed by 25% of respondents who have not opted for e-mails/online storage as external storage media. Whereas 1.41% of participants seldom preferred e-book reader and Mobiles/tablets as an external storage media.

It was revealed that the majority of the student respondents i.e. 54.93% (A= 34.51% + F= 20.42%) mostly prefer using pen-derive as external storage media whereas 64.08% sometimes prefer E-Book reader as external storage media.

The similar study on Information seeking behaviour of Social Science Faculty was done by Chattwal (2014) [3] which indicates the pen-drive is most preferred as an external storage device due to its large storage capacity as well as convenience of usage was found to be the most preferred by 50.2% participants database appears to be the most suitable usage pattern for the University faculty members.

**Table 3: Usage Trends of External Storage Media: Faculty Vs Students Respondents.**

| Sr. No.    | Frequency  | Pen-Derive   |              | CD/DVD       |              | E-Mail/ Online Storage |              | E-Book Reader |              | Mobile/Tablets |              |
|------------|------------|--------------|--------------|--------------|--------------|------------------------|--------------|---------------|--------------|----------------|--------------|
|            |            | FU           | SU           | FU           | SU           | FU                     | SU           | FU            | SU           | FU             | SU           |
| 1.         | Always     | 59<br>40.97% | 49<br>35.51% | 15<br>10.42% | 35<br>24.65% | 36<br>25.00%           | 41<br>28.87% | 12<br>8.33%   | 4<br>2.82%   | 15<br>10.42%   | 13<br>9.15%  |
| 2.         | Frequently | 37<br>25.69% | 35<br>24.65% | 18<br>12.50% | 9<br>6.34%   | 53<br>36.81%           | 25<br>17.61% | 46<br>31.94%  | 19<br>13.38% | 48<br>33.33%   | 31<br>21.83% |
| 3.         | Sometimes  | 33<br>22.92% | 41<br>28.87% | 42<br>29.17% | 50<br>35.21% | 32<br>22.22%           | 28<br>19.72% | 74<br>51.39%  | 91<br>64.08% | 64<br>44.44%   | 50<br>35.21% |
| 4.         | Seldom     | 11<br>7.64%  | 4<br>2.82%   | 32<br>22.22% | 30<br>21.13% | 14<br>9.72%            | 12<br>8.45%  | 4<br>2.78%    | 2<br>1.41%   | 4<br>2.78%     | 2<br>1.41%   |
| 5.         | Never      | 4<br>2.78%   | 13<br>9.15%  | 37<br>25.69% | 18<br>12.68% | 9<br>6.25%             | 36<br>25.35% | 8<br>5.56%    | 26<br>18.31% | 13<br>9.03%    | 46<br>32.39% |
| Mean Value |            | F.U          | 12.56        | S.U          | 10.41        | Standard Deviation     |              | F.U           | 3.66         | S.U            | 4.82         |



**Fig. 1: Usage Trends of External Storage Media: Faculty Vs Students Respondents.**

### Comparative Analysis of External Storage Media by Faculty and Student Respondents

It can be deduced from the Figure 1 that the large number of the faculty and student users sometimes preferred 'E-Book Reader' as the external storage media whereas after combining the scores of 'Always' and 'Frequently', it has been analysed that 'Pen-drives' is the most preferred external storage media by both of the students and faculty respondents for storing the information for future references. It has also been evinced that 32.39% of student respondents did not prefer mobiles/tablets; on the contrary the 25.69% of faculty respondents did not prefer CD/DVD for storing information. It can be deduced from the above table that 'Pen-drives' are always used by both faculty (40.97%) and student respondents (35.51%) as the external storage media because of its convenience, large internal memory and portability in use, it is been highly preferred. Whereas 29.17% and 35.21% of faculty and student respondents sometimes uses CD/DVD. It has been analysed that E-mails/online storage media are frequently been used by 36.81% of faculty respondents whereas the 28.87% of student respondents always used it (Table 3).

### FINDINGS

- It can be deduced from the above table that 'Pen-drives' are always used by both faculty (40.97%) and student respondents (35.51%) as the external storage media because of its convenience, large internal memory and portability in use, it is been highly preferred.
- The faculty and student users sometimes preferred 'E-Book Reader' as the external storage media whereas after combining the scores of 'Always' and 'Frequently', it has been analysed that 'Pen-drives' is the most preferred external storage media by both of the students and faculty respondents for storing the information for future references.
- It has also been evinced that 32.39% of student respondents do not prefer mobiles/tablets; on the contrary the 25.69% of faculty respondents do not prefer CD/DVD for storing information.
- It has been analysed that E-mails/online storage media are frequently been used by

36.81% of faculty respondents whereas the 28.87% of student respondents always use it.

### SUGGESTIONS AND RECOMMENDATIONS

The study at hand was focussed on the evaluation of usage of N-LIST E-resources in the Select Degree Colleges Affiliated to Panjab University, Chandigarh. The libraries should endeavour to launch a marketing plan to promote the usage of N-LIST E-resources and its awareness among the users through email alerts, text messages, social networking sites, whatsapp groups, blogs, and wikis etc. It is suggested that the subscription cost of N-LIST E-resources should be reduced to the same as earlier for the Non-aided colleges also.

Further the research in this regard will widen the criteria of the study and identify as to how the faculty and the student from the member colleges affiliated to other Universities explore the usage of the N-LIST E-resources. The authors feel that there is a need for appropriate and constant evaluation of this study in order to enhance insight into the usage analysis and the relevance of the information retrieved from the N-LIST E-resources.

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