# Use of N-LIST programme and the role of college librarians : a survey

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Abstract— N-LIST- "National Library and Information Services Infrastructure for Scholarly Content", jointly executed by UGC-INFONET Digital library Consortium, INFLIBNET Centre and INDEST-AICTE Consortium, IIT Delhi launched in 2010, aims at providing access to selected e-resources to students and teachers of affiliated colleges at affordable cost. The study aims at ascertaining the awareness of N-LIST programme among science and social science teachers of selected colleges, understand the usage pattern and preferences, level of satisfaction, the need for orientation programmes and the various suggestions put forward by the users. The questionnaire method was used for the study. Questionnaires were distributed to science and social science faculty members of five colleges. Most of the respondents were aware of N-LIST and majority of them came to know about N-LIST from their college librarian. It is found that teachers above the age of 45 years access N-LIST more than teachers of other age groups. Those in science subjects access N-LIST more. The teachers access N-LIST for preparing articles, teaching, preparing presentations for projects etc. Though they find N-LIST very useful, they face certain problems such as slow Internet connectivity and lack of infrastructure in colleges and limited resources available in N-LIST. A few of the respondents have suggested that more resources such as Science Direct may be included in N-LIST. It is hoped that programme will be accessible to more colleges with a wider coverage in future.

Index Terms-- N-LIST, INFLIBNET, College teachers, Mahatma Gandhi University, Kerala

# I. INTRODUCTION

In the present digital knowledge era, the easy and quick access to information, which is the vital resource for each and every citizen, is essential for the development of any nation. The concept of library cooperation, inter library loan and resource sharing among libraries have paved the way for

initiatives of library consortia. The most important development that has taken place for academic libraries is the move from being self sufficient organizations to becoming members of library consortia for collaborative survival.

The UGC Infonet Digital Consortium, an initiative of INFLIBNET Centre, was a great leap forward for the democratization of knowledge. Through this programme, a very large amount of information was made available to the academic community of universities in India. Still, a large group of students and teachers in colleges, except those who have access to nearby university libraries, were deprived off this knowledge reservoir. So as a next step, the project entitled "National Library and Information Services Infrastructure for Scholarly Content (N-LIST)" jointly executed by UGC-INFONET Digital Library Consortium, INFLIBNET Centre and INDEST-AICTE Consortium, IIT Delhi was launched in the year 2010.

#### II. 1 N-LIST PROGRAMME

N-LIST is an initiative of the Ministry of Human Resources Development, funded by the University Grants Commission. The main aim of this Programme is to subscribe and provide access to selected e-resources to Universities and colleges through the two consortia namely UGC Infonet Digital Library Consortium and the INDEST-AICTE Consortium and to act as a Monitoring Agency for colleges. This Programme provides 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 access to selected eresources to colleges. From the year 2014, N-LIST Programme is included under UGC-INFONET Digital Library Consortium as a college component. The colleges (except Agriculture, Engineering, Management, Medical, Pharmacy, Dentistry and Nursing) in India are eligible to get access to the e-resources under the Programme. The programme is meant to extend the availability and access of e-resources to the students, researchers and faculty of colleges and other beneficiary institutions across the country through server(s) installed at the INFLIBNET Centre. It also provides Internet bandwidth, a prerequisite for delivery of scholarly content subscribed through the Consortium. The authorized users from colleges can access e-resources and download articles required by them directly from the publisher's website once they are duly authenticated as authorized users through servers deployed at the INFLIBNET Centre. The main advantages of this programme are

- Remote access to e-resources with User Id and password
- Ambitious programme extending e-resources to colleges at affordable cost
- Provides multiple access of 24 hours a day and 7 days a week
- With facility for advance online publication, research papers are available online two months ahead of the print version.

Evaluation, promotion, imparting training and monitoring all activities involved in the process of providing effective and efficient access to e-resources to colleges, can be achieved only through effective and maximum utilization of the Programme. The present study is an attempt to analyse the extent of usage of the N-LIST programme among the faculty members of a few randomly chosen Arts and Science colleges in and around Kottayam town and the role of libraries in promoting its use.

# III. PRESENT STATUS OF N-LIST PROGRAMMES

As on 12 December 2014, 4255 colleges in the country have registered with N-LIST Programme which includes 3875 Government/Government aided colleges covered under the section 12 B/2F of UGC Act and Non-Aided colleges. All eresources subscribed for colleges under the N-LIST Project are now accessible to these 3875 colleges through the N-LIST website <a href="http://nlist.inflibnet.ac.in">http://nlist.inflibnet.ac.in</a>. [1]

# IV. REVIEW OF LITERATURE

Dr Chikkamanju, Mallinath Kumbar and G Kiran Kumar in their paper "Use of N-LIST services by the faculty and students of University of Mysore: a comparative study" [2] presented in the National Seminar on emerging tends in ERMS in college libraries, September 27 & 28, 2013 studied the factors affecting the optimum utilization of N-LIST services, place of access, purpose of use, types of services, level of satisfaction, problems faced while accessing, training/orientation programmes and preferred external medium of storage for storing the data downloaded via N-LIST services. The questionnaire and interview method was used for the study. It was found that students and faculty mostly access N-LIST services for seminar presentations. They faced the problem of retrieval of irrelevant information. Majority of those included in the study were moderately satisfied with the information retrieved through N-LIST

services. They were of the opinion that library staff are not providing training/orientation programmes for accessing the N-LIST services. CD-ROMS, DVDs, pendrives etc. were used for storing the information downloaded from N-LIST.

In "Status of college libraries in India in accessing N-LIST services: an observation" by Ravi B and Somasekhar Y L [3], they have compared the government colleges from different states and union territories and the registered colleges using N-LIST services. Only a few colleges are registered for N-LIST services. Those not registered with N-LIST due to lack of funds cannot access the e-journals and e-books available with N-LIST. The authors suggest that the government and NAAC should make it mandatory for colleges to register with N-LIST and that INFLIBNET should provide the necessary awareness and orientation programmes.

Mangesh Talmale and Avinash Humilore in "SWOT analysis of N-LIST programme" [4] have conducted strength, weakness, opportunity and threat analysis of N-LIST programme. SWOT analysis helps in evaluating the strengths to overcome weaknesses, using opportunities to overcome threats and take appropriate strategic actions. According to them, changes take place due to many factors such as technology, demographic features, economic factors, etc. Many problems can be solved if member libraries agree to use common library automation systems, standards and formats,

In 'Impact of ICT on library users for accessing eresources available under N-List programme", Sunil D Punwatkar and Sandip S Salunke [5] studied the impact of ICT on library users with special reference to UGC-INFLIBNET. INFLIBNET helps in resource sharing through its various modules including N-LIST. These provide peer reviewed journals, abstracts, etc.

Dr Manoj Kumar Sinha, Sucheta Bhattacharya and Sudip Bhattacharya in "ICT and Internet literacy skills for accessing to e-resources available under N-LIST programme: a case study of college library users of Barak Valley, South Assam [6] tries to gain knowledge about the N-LIST programme implementation and the status of ICT and Internet literacy skills among the college library users from selected colleges. Survey method was used for the study, including questionnaire, observation of the participants and interview of some of the participants. Some of the suggestions given by the authors were as follows

- More bandwidth to be provided to colleges covered under N-LIST programme.
- Science Direct of Elsevier to be included in N-LIST, especially for Biomedical sciences/Life sciences/Physical sciences.
- Appropriate ICT infrastructure facilities and Internet connectivity to be provided to colleges not registered under N-LIST.
- Increase in the Internet access points/ terminals.
- It should be made mandatory for colleges to register under N-LIST.

 Regular user awareness/orientation programmes should be conducted.

The college libraries should register under N-LIST programme and give wide publicity among users for optimum utilization of the available services.

#### V. OBJECTIVES OF THE STUDY

- To ascertain the awareness of N-LIST programme among college teachers;
- To understand the usage pattern of e-resources by the teachers in Science and Social Science faculty;
- To examine the frequency of access to the consortium;
- To ascertain the preference of e-resources;
- To draw opinions from the users about N-LIST service;
- To ascertain the need for user orientation programme; and
- To examine the various suggestions put forward by the users of the Programme.

#### VI. SCOPE AND LIMITATION

The study was conducted among the faculty members of randomly selected arts and science colleges in and around Kottayam, affiliated to the Mahatma Gandhi University. As per the statistics available in the N-LIST website 298 colleges in the state of Kerala have registered under the Programme, out of which 89 are affiliated to the Mahatma Gandhi University. The study was also restricted to the colleges in and around Kottayam alone, due to lack of time and vast area in which the affiliated colleges are situated. The authors were also forced to omit a few colleges as the N-LIST connectivity was set up only recently and no substantial use of the Programme has been made.

### VII. METHODOLOGY

The survey method was adopted, using questionnaire as a tool for data collection. Data was also taken from the N-LIST website.

# VIII. ANALYSIS OF THE DATA

Questionnaires were distributed among the faculty members of 5 colleges in both Science and Social Science subjects. 89% of questionnaires were duly filled and returned. Data related to the following aspects are analysed for the study.

# A. Age

The survey was conducted among teachers of all age groups ranging from 20 years to above 45 years. The data collected as shown in Table 1. reveals that the use /access of the e-resources under N-LIST Programme by teachers above

the age of 45 years is slightly ahead of other age groups. Teachers in the age group 26 to 30 years are also effectively using the Programme.

TABLE I. USE OF E-RESOURCES UNDER N-LIST PROGRAMME BY DIFFERENT AGE GROUPS OF TEACHERS

Age groups (in years)	No. of Teachers
Below 25	5
25-30	36
31-35	33
36-40	23
41-45	17
Above 45	41

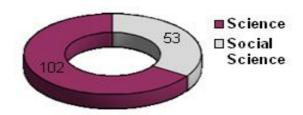
The Career Advancement Scheme of UGC requires faculty members to exhibit their intellectual output through seminars, projects, publications etc. As a result, teachers are bound to work beyond classroom teaching, in order to acquire higher grades or positions. This could be one reason for the use of the e-resources available through N-LIST Programme, by the teachers above 45 years of age.

# IX. SUBJECT HAVING HIGHEST USAGE

Survey was conducted among teachers of both science and social science faculties. It is seen that number of teachers in science subjects outweigh the number of teachers in social science subjects in the use of N-LIST programme. This may be due to the presence of major science publishers of e-journals and e-books in this consortium.

Figure 1. Use of N-LIST Programme

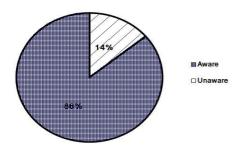
ubject wise use of the N-LIST e-resource



# X. AWARENESS OF THE PROGRAMME

Out of 155 teachers who responded to this study, 133 (86%) are quite aware of this programme. N-List, being a new product , was widely publicized by universities and colleges. College Librarians and Principals were given training programmes on this programme in M. G. University. The high percentage of awareness shows that all those efforts have earned good results.

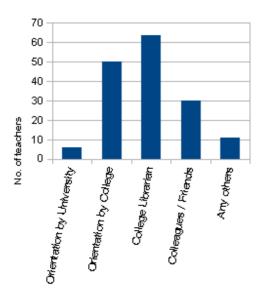
Figure 2. Awareness of teachers about N-LIST Programme



#### XI. SOURCE OF AWARENESS

Teachers were asked how they came to know about N-List programme. 64 teachers (48%) were informed of the programme by college librarians. 50 teachers got the information from orientation programmes conducted by colleges. 6 persons familiarized N-List from the orientation programmes conducted by university and 30 teachers got the details of this programme from interaction among their colleagues.

Figure 3. Source of Awareness of N-LIST Programme



# XII. TYPE OF DOCUMENTS ACCESSED

N-LIST provides access to e-journals of 11 publishers and e-books from 10 publishers. The study shows that the teachers prefer to access e-journals than e-books. However a small percentage access both e-resources. Journals are more preferred because they contain most nascent information when compared to books.

# XIII. PLACE FROM WHERE N-LIST E-RESOURCES ARE ACCESSED

Unlike UGC Infonet Consortium, N-LIST has an added advantage by which a student or teacher can access its e-

resources from anywhere through individual username and password authentication. Each user in the college is given a user name and password to access the e-resources. It is seen that 50 teachers prefer to access N-LIST from their homes, while 80 teachers access it from their colleges and some access it from both these places. This shows the availability of advanced infrastructure facilities provided in colleges.

#### XIV. PURPOSE OF ACCESSING N-LIST

The study reveals that teachers of the colleges under study access N-LIST for various purposes such as research, writing research papers or articles, teaching, preparing for presentations in seminars and project work. But majority of them, 91 (68%) access it mainly for teaching purposes, while some use it for research and writing articles and a few others use it for preparing projects and dissertations also. From this, it is seen that the facility of N-LIST provided by INFLIBNET Centre will surely improve the quality of teaching standards in affiliated colleges.

#### XV. FREQUENCY

94 teachers were found to access N-LIST as and when required, while 33 teachers access it frequently. N-LIST eresources have become a reliable and inevitable source of information for the teachers within their reach.

#### XVI. MOST USED E-JOURNAL PUBLISHER

The teachers were asked to rank the publishers of ejournals according to their preference. Accordingly, JSTOR was ranked first and Royal Society of Chemistry ranked second. Table 2. shows the preference of publishers as ranked by the teachers

TABLE II. PREFERENCE OF PUBLISHER / PLATFORM OF E-JOURNALS

Name of Publisher	Rank
JSTOR	1
Royal Society of Chemistry	2
Indian Journals	3
Oxford University Press	4
Cambridge University Press	5
American Institute of Physics	6
Economic and Political Weekly	6
American Physical Society	7
Institute of Physics	7
Annual Reviews	7

Although it is seen that Science teachers use the eresources more than Social Science teachers, J-STOR has been given first preference among publishers. This is because, there are different publishers for science subjects and the search is scattered among these publishers. However, social science teachers rely mainly on J-STOR which is a platform providing resources mainly in Social Science.

# XVII. INFRASTRUCTURE FACILITIES

Teachers are fairly satisfied with the infrastructure facilities available in their colleges. 68 teachers opined that they have good infrastructure facilities while 65 teachers state that only average facilities are available in their colleges. Most of the colleges have improved their ICT infrastructure

facilities as per the stipulations of the National Assessment and Accreditation Council. The good ICT infrastructure serves as basic platform for effective usage of the N-LIST programme.

#### XVIII. MOST USED E-BOOK PUBLISHER

Similarly the E-book publishers have also been ranked according to preference as follows

TABLE III. PREFERENCE OF PUBLISHER /PLATFORM OF E-BOOKS

Name of Publisher	Rank
e-brary	1
Oxford Scholarship	2
EBSCOHOST-Net Library	3
Hindustan Book Agency	4

#### XIX. MODE OF SEARCH

There are different modes for searching the e-resources in N-LIST. The e-journals are searched by specific journal title, browsing the journals list, subject-wise and publisher-wise. However,the e-books are searched by browsing titles and through the publisher or platform-wise search. The study reveals that subject-wise search is made by majority of teachers in the case of e-journals, whereas the titles are browsed in the case of e-books.

#### XX. MODE OF DOWNLOADING

Teachers follow various methods for downloading their required articles or references from N-LIST e-resources. Most of them i.e., 90 teachers (68%) transfer the search results to removable storage devices/media like USB while 55 of them store the search results as e-mail attachments. Reference management softwares like Zotero and Mendley, which are very beneficial for preparing bibliography and saving the references, are yet to be familiarized by college teachers. Classes and hands on training programmes to familiarise these softwares will enable teachers and research scholars to gain expertise in these softwares as these are inevitable tools for research in the present digital era.

# XXI. PROBLEMS IN ACCESSING N-LIST

The survey shows that although N-LIST seems to be very effective in all academic activities of teachers, 85 teachers state that they face certain problems in accessing the same such as lack of speed in Internet connectivity and limited coverage of subjects of the resources provided through N-List compared to UGC Infonet.

# XXII. LEVEL OF SATISFACTION

In spite of certain problems in accessing N-LIST, all teachers are fairly satisfied with this programme.

# XXIII. USE OF UGC INFONET

N-LIST is a college component of UGC Infonet Digital Library Consortium. The users of N-LIST can supplement

their research or teaching requirements by accessing the eresources available through UGC Infonet Consortium, which is accessible to Universities. The study shows that majority of the teachers have not accessed UGC Infonet.

#### XXIV. FINDINGS AND SUGGESTIONS

Based on the study, the following findings are arrived at which satisfy the objectives of the study.

N-LIST is gaining fame and more colleges are becoming members of this Programme day by day. Majority of the teachers are aware of the Programme and College Librarians are playing an important role in helping them to use the eresources available through the Programme.

The e-resources under the Progamme are used as and when required according to the needs of the teachers. Teachers of Science faculty use it more than Social Science teachers. This is mainly because the scope and coverage of e-resources is limited in the case of Social Science subjects. It is also found that the e-resources are used mainly for teaching purpose. Subject wise search is mainly adopted by all.

Although individual user Id and password is given, majority of the teachers access the e-resources using the infrastructure available in the colleges. Most of them save the search results downloaded and transfer it to storage devices such as USB, while some others store them as email attachments.

Journals are always outstanding because of its nascent content. With the journals being published online, there is no doubt that e-journals are preferred more than e-books. The study also shows that teachers prefer the e-journals to e-books.

The study reveals that colleges where orientation programmes have been conducted, the use of N-LIST is high. Thus, to increase the use of N-LIST Programme, more orientation programmes are to be initiated in all colleges. Students should also be encouraged to use the resources to supplement their course of study.

The study has also tried to procure suggestions from teachers to improve the Programme. In anticipation that INFLIBNET will surely expand the scope of N-LIST, based on the usage of this service, many have suggested the need for additional resources. A few teachers suggested to include more resources while others specifically suggested to include Elsevier publications mainly Science Direct.

# XXV. CONCLUSION

The N-LIST Programme has gained fame within a short span of time and colleges are being enriched with the eresources available through the Programme. The Mahatma Gandhi University Library had conducted an Orientation Programme in the year 2012 to introduce N-LIST Programme to colleges and to inform the formalities for registering colleges with the Programme. The Orientation programme was fairly well attended by the Principals and Librarians of affiliated colleges. Some college librarians have also initiated orientation programmes in their colleges. As a result, N-LIST Programme has enabled colleges, through their libraries, to provide e-resources to the academic community at a nominal

subscription rate, thereby overcoming the problems of growing prices of National and International journals. CMS College, Kottayam, one of the colleges selected for the study has been rated second in the usage of N-LIST by INFLIBNET at the national level. The Programme has also added flavour to the research and teaching requirements of the faculty of colleges. It is hoped that the N-LIST Programme will widen its scope and coverage of journals to all subjects and the number of e-resources available currently through this Programme will be enhanced.

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