Developing Library and Information Resources and Services in the Internet Era

Knowledge

Information

Data

INDIAN LIBRARY ASSOCIATION
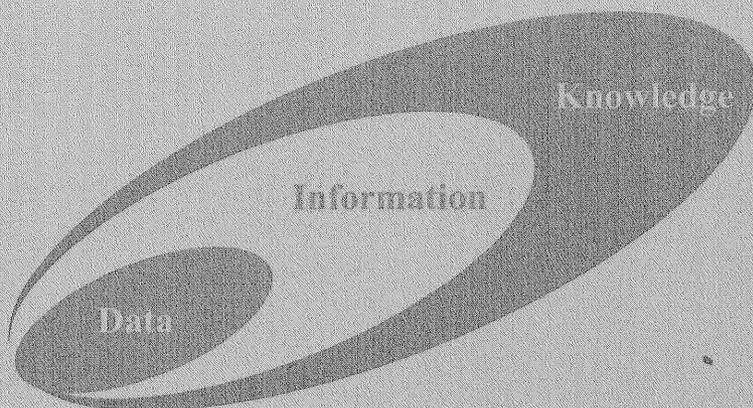
Editor-In-Chief
Prof. Jagtar Singh
Editors
D. V. Singh
Dr. N. S. Shokeen
Dr. (Mrs) R. Chandra
Dr. Trishanjit Kaur
Dr. O. N. Chaubey
Nirmal K. Swain

Plutchak, T. Scott (2005) Librarian 5.0. Available at Google cache of http://tscott.typepad.com/tsp/2005/12/index.html

Rozenweig, Mark (2006, May 26) The central problem of library 2.0: privacy. Library Juice: on the intersection of libraries, politics, and culture. http://libraryjuicepress.com/blog/?p=68

Use of Electronic Resources by NPL (India) Researchers: A Survey

Rajpal Walke

D K Tewari

N K Wadhwa
National Physical Laboratory, Dr K S Krishnan Road,
New Delhi-110012 India

Nishy P.
NISCAIR, 14, Satsang Vihar Marg, Kutub Institutional Area, New
Delhi-110067

ABSTRACT

The present era is the age of electronic system. The advancement in information processing, storage and communication technologies have revolutionized the role of the libraries and information centers allover the world, new competitions, new demands and proving a variety of information services now a days as a result libraries are facing new challenges Evaluate the sue of library at the National Physical laboratory (NPL) in New Delhi India. A survey of 912 employees was conducted through a questionnaire. The analysis of the collected data covers the use of electronic resources and how the electronic resources are improving the research and also what are the problems that are faces in using the electronic resources. Concludes that the main intention of the use of electronic resources has been the research interest of the users.

Keywords: NPL, Electronic resources, Survey

Introduction

With advancement of technology the libraries are moving towards digital Resources, which are found to be less expensive and more helpful for easy access. These are helpful especially to distant learners who have limited time to access the libraries from out side by dial up access by the commonly available electronic resources mainly CD-ROMs, OPACs and Internet etc., which are replacing the print media.

About Npl

The National Physical Laboratory is the premier research laboratory in India in the field of physical sciences. It has developed core competencies in standards, apex level calibration, engineering materials, electronic materials, materials characterization, radio and space physics, global change and environmental studies, low temperature physics, and instrumentation. Established in 1947, it is one of the oldest laboratories of the Council of Scientific and Industrial Research (CSIR). Its main activities are Research and development, Consultancy, Sponsored and contract research, Calibration and testing

The main aim of the laboratory is to strengthen and advance physics-based research and ensure overall development of science and technology in the country. Over the long period, the Laboratory has come to develop several new technologies of strategic, societal and national importance.

Scientific research operates with information as input and produces information as output. Input information is in part already disclosed and in part it originates from the researchers themselves who conduct the respective research work. Output information is novel and or reorganized knowledge, which is disclosed in the form of publications. Over the years the laboratory has published number of papers in research journals. This study seeks to understand what kind of shift in research at National Physical Laboratory has taken place over time, if any, and to identify factors that have come to influence research. In addition, it seeks to understand to what extent results from the study could be generalized to understand parameters that have potential to advance and promote research. Such a study is of great significance since the laboratory is currently celebrating diamond jubilee of its inception.

Scope and Limitations
- To know the availability of different types of electronic resources in NPL
- To study the use of different types of electronic resources
- To study the purpose and utilization of the electronic resources
- To find out the hindrances faced while accessing and using electronic resources
- To observe the impact of electronic resources over the traditional one and
- To suggest suitable recommendations to improve the electronic resources and services for the benefit of organization

Methodology

A questionnaire was designed to elicit the opinion of the faculty members. These were distributed among the researchers and other library users and the required data was collected which was further supplemented by informal discussions with the faculty. The analysis and interpretation of the data is presented in the subsequent sections.

Analysis
Qualification –Wise Distribution Of Respondents

Table 1 indicates that, the majority (30.87%) of the respondents are postgraduates with Ph D. in Science & Technology and 1.98% of the respondents are Bachelors degree holders in Engineering. At the same time 26.91% of the researchers are under graduates followed by 16.99% of the faculty members are others

TABLE-1: Qualification-wise distribution of respondents

Education	Total Responses	%tage
M Sc, Ph D	218	30.87
BE	14	1.98
B Sc	15.86	15.86
Graduate (Other discipline)	190	26.91
Under Graduate	120	16.99
Others	52	7.36
Total	706	99.97%

Sex Wise Distributions of Faculty Members

TABLE-2 reveals that 93.20% of male members are working NPL whereas, only 6.79% are female members in NPL. This is a glaring example of male-female imbalance in Research community at NPL.

TABLE-2: Sex wise distribution of faculty members

SEX	Total Responses	%tage
Male	658	93.20
Female	48	6.79
Total	706	99.99

Publication Experience of Researchers in Terns of Publication Productivity

Table-3 shows that only, 15.86% of the researchers have more than 25 research paper publication experiences and at the same time 13.31% of the researchers have 5-15 publication experience followed by 51.27%

researchers having less than 5 publications, whereas 15.58% of respondents have 15-20 publications respectively.

Table-3: teaching experience of faculty members

Publications	Total Responses	%tage
0-5	362	51.27
5-15	94	13.31
15-20	110	15.58
20-25	28	3.96
Above 25	12	15.86
Total	706	99.98

Frequency of Using Electronic Resources by Researchers
Table 4 shows that, out of 706 respondents, 6(0.84%) uses electronic resources once a week followed by 522 (73.93%) who are using daily whereas 26(3.68)% of faculty members use occasionally and only 1.27% never use electronic resources in the library

TABLE-4: Frequency of using electronic resources by faculty members

Frequency	Total Responses	%tage
Daily	522	73.93
2-3 times daily	141	19.97
Once in a week	6	0.84
Once in a Month	2	0.28
Occasionally	26	3.68
Never	9	1.27
Total	706	99.97

Purpose of Using Electronic Resources:

Table: 5

Reason for Use	Total Responses	%tage
For Research work	204	28.89
For Communication	116	16.43
For finding relevant specialized information	32	4.53
To update subject knowledge & General knowledge	24	3.39
To gain current & general information	330	46.74
Total	706	99.98

Table-5 reveals that, majority 330(46.74%) of researchers are using electronic resources to gain current & general information followed by

204(28.89%) for research work and finding relevant information in their specialization. Whereas, 3.39% use to update subject knowledge & General knowledge and to gain current and general information and fewer percentage (4.53%) of researchers are using for specialized purpose.

Use of Electronic Resources by Researchers

Table-6

E-recourses used	Total Responses	%tage
CD-Roms	17	2.40
Internet	580	82.15
OPAC	0	0
Online Database	0	0
E-journals	94	13.31
E-Books	15	2.12
Total	706	99.98

Table 6 shows the frequency of use electronic resources by the researchers Majority 580(82.15%) of the researchers are using internet followed by 94(13.31 ejournals using CDROms 17(2.40%). However OPAC and Online databases no body is using

Learning To Use Electronic Resources Table-7
Table 7 shows the most popular methods of acquiring the necessary skill to use electronic resources. 27 (33.33%) respondents take guidance from library staff. 24 (29.63%) respondents learn through trial and error method, 13 (16.05%) respondents learn with the help of computer department staff and 10 (12.35%) respondents learn from external courses.

Adequacy of Information in Electronic Resources

Table-8

Opinion	Total Respondents	%tage
Always	575	81.44
Some time	122	17.28
Never	9	1.27
Total	706	99.99

Table-8 shows that 575(81.44%) of the respondents indicate that the information available in the electronic resources is always adequate followed by 122(17.28%) indicate some time adequate and 9(1.27%) of

respondents felt that the information available in the electronic resources is never adequate

Hindrances In Accessing Electronic Resources

Table-9 shows the opinion regarding hindrances in accessing the electronic resources. Majority 224 (31.72%)stated that lack of IT knowledge to effectively utilize as the barrier to use electronic resources followed by 56(7.9%) opined that time consuming 162(22.94%)felt that limited access to computers.

Hindrances.

Table-9

Hindrances	Total Responses	%tage
Too much information is retrieved	155	21.95
Time consuming	56	7.93
Lack of IT knowledge to effectively utilize the services	224	31.72
Using electronic resources often distracts from doing work	109	15.43
Limited access to computers	162	22.94
Total	706	99.97

Impact of Electronic Resources on Academic Career

Table-10: shows that, 280 (39.66%) respondents stated access to a current up-to-date information is the benefit of using electronic resources. Similarly, 116(16.43%) expressed faster access to information is the advantage, and 220 (31.16%) indicated easier access to information as the benefit to develop the scientific career of the researchers in terms research and development. .

Impact of Electronic Resources on Research and General.

Table-10

Category	Total responses	%tage
Access to a current up to-date information	280	39.66
Easier access to information	220	31.16
Faster access to information	116	16.43
Access to a wide range of Information	90	12.74
Total		99.99

Problems Faced While Using Electronic Resources

Table-11 shows that, 194(27.47%) of respondents have faced problem of lack of timing followed by 17 (10.90%) of faculty members indicating lack of training as the main problem while using electronic resources. 199(28.18%) and 16 (2.26%) of the researchers are troubled with lack of hardware and software problems respectively.

Problems Faced While Using Electronic Resources.

TABLE: 11

Problem	Total responses	%tage
Lack of hardware	199	28.18
Lack of software	16	2.26
Lack of training	77	10.90
Lack of information on Electronic resources	122	17.28
Lack of operating funds	98	13.88
Lack of timings	194	27.47
Total	706	99.97

Success Rate of Finding Required Information in Electronic Resources

The respondents were requested to indicate the success rate in finding required information using electronic resources. Table 12 shows that, 180(25.49%) of respondents were succeeded in the range of 75-99, followed by 94 (13.31%) respondents who succeeded in the range of 50-74 and least percentage 44(6.23%) of the researchers were succeeded in the range of less than 25%

Success Rate.

Table-12

Success rate	Total responses	%tage
100%	324	44.89
75-99%	180	25.49
50-74%	94	13.31
25-49%	64	9.06
Less than 25%	44	6.23
Total	706	98.98

Researchers Opinion Regarding Features of Electronic Resources as A Source For Their Research Work:

Table-13

Features	Poor	Fair	Good	Very good	Excellent
accessibility	18	26	480	102	80
accuracy	22	39	520	104	21
availability	29	42	175	180	280
Consistency	23	32	380	160	111
Ease of use	28	24	520	114	20
flexibility	18	30	290	209	159
permanence	38	39	310	188	131
timeliness	28	32	295	190	171
Uniqueness	20	18	420	112	136
Usefulness	0	14	443	201	48

Findings of The Study

Only 57.27% of the researchers have more than 25 publications

- Majority of respondents (73.93%) are using electronic resources daily and 35.09% of researchers are using electronic resources for finding relevant information in their area of specialization and for research work

- Majority 330(46.74%) of the respondents use Internet and 17 persons (2.40%) uses CD-ROMs. While using 98 (13.88%) respondents are taking Guidance from Library Staff regarding the use electronic resources

- Majority of the respondents indicate that, the information available in the electronic resources is always adequate.

- Regarding the hindrances of accessing the electronic resources, majority of respondents 224(31.72%) stated that lack of IT knowledge to effectively utilize the services is the main barrier to use electronic resources.

- Majority of respondents 280(39.76%) stated access to a current up to date information as a benefit of using electronic resources

- Majority of respondents 194(13.88%) have faced problem of lack of timing and 77(10.91%) researchers indicate lack of training as the main problem while using electronic resources and

- Regarding the success rate of finding the required information in electronic resources, 324 (44.89%) of researchers have rated that they have succeeded in the range of 100

- Electronic resources helps to increase the Research & Developments in terms of patents and publication productivity

Suggestions

1. The Library/authority must conduct training programmes for the researchers regarding how to use the electronic resources effectively.
2. Awareness should be created to use e-journals and e-books to obtain current information
3. More computer/terminals should be installed in the library for the benefit of the researchers and library users
4. More funds should be given to acquire electronic resources.

Conclusion

The present study seeks to examine the usage of e-resources by the researchers in NPL (India). The survey reveals that, most of the researchers are aware of electronic resources. Information environment is very complex. In order to retrieve desired information of the users, the information intermediary has to adopt inter alia certain behaviourial strategies to make the system effective. Survey is one such approach that identifies the basic requirements that the researchers and users needs. The electronic resources have played a vital role in all fields of human life. These have rapidly changed the way of seeking and disseminating information. It is clear from the study that, the researchers of NPL (INDIA) have developed their research career. The speed of availability and the ease of accessibility of information make the faculty members to use electronic resources more frequently. This study helps the librarian to know the importance of electronic resources in academic environment.

References:

Hewitson Andrew. Use and awareness of electronic services by academic staff at leads metropolitan Universities:A quantitative study, Journal of librarianship and information science, 34(1)2002

Emery Jill. Reasons for use and non-use of electronic journals and database. Transforming serials: this revolution continues, 17(2) 2003

Ray Kathryn and Day Joan. Student attitude towards electronic information resources. Information research. Vol 2, 1998

Lohar MS and Roopashree TN. Use for electronic resources by faculty members in BIET, Davanagrere: A Survey. SRELS Journal of Information Management 43(1) 2006

Raza M Masoom and Upadhyay AK. Usage of e-journals by researchers in Aligarh Muslim University: A study. The International Information and Library Review. Vol 38, 2006

NPL (India) Annual Report 2004-05

http//:www.nplindia.org