

PARADIGM SHIFT in LIBRARIES

A Festschrift to Rev. Fr. Jose Viruppel



Edited by

**Annu George
Savithry T.K.
Vimal Kumar V.
Jasimudeen S.**

KERALA LIBRARY ASSOCIATION, KOTTAYAM REGION

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KOTTAYAM REGION

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PREFACE

We are immensely happy as the Kottayam Region of Kerala Library Association crosses another milestone in its history. The Kottayam Region has been functioning under the leadership and guidance of several librarians. For almost 10 years, the Region has obtained the leadership of Rev Fr Jose Viruppel, as the President of the KLA-Kottayam Region, and it is noteworthy that the activities of the Region were very prestigiously live with programmes under his leadership. As a token of love and respect, cherishing his leadership, we present this E-book as Festschrift to Rev Fr Jose Viruppel, who retired from active service as Librarian in the month of April 2015.

This book titled "**Paradigm Shift in Libraries**" is published as an E-book under Creative Common License so that anybody can access, read, share and download the book from anywhere free of cost. The Book consists of articles reflecting the modern views of libraries and librarians. There is a drastic change in all aspects of the library from the traditional libraries to the modern libraries. An inevitable shift from the traditional functions and services has become necessary today. It is in this context, that the contributors of this book have prepared their articles and the contents are purely the views of the authors.

The book includes ten papers dealing with various topics such as shift of the role of librarians to cybrarians, newly garbed libraries, user approach to the services of a library, proposal for a union catalogue of libraries of institutions in higher education, study on N-LIST, need for developing information literacy skills in e-learning environment, personal learning network for professional development, selection and management of linux operating systems in libraries, the role of facebook pages in libraries, and scientometric study of open access psychology journals.

On behalf of Kerala Library Association, we thank all the contributors for their valuable contribution to the release of this festschrift.

Editors

KERALA LIBRARY ASSOCIATION

Kerala Library Association (KLA), the premier professional society in the LIS domain of the region was founded in 1971. The Association secured registration as a society under Charitable Societies Act on 8.12.1972 and became the first lawful body of professional librarians in Kerala. KLA has its head office at Thiruvananthapuram and four regional centres at Kottayam, Ernakulam, Thrissur and Kozhikode. Since its inception KLA has been able to represent the interests of the qualified librarians working in different libraries, always with due foresight and objectivity, keeping in view the proper development of the libraries and library services in the state. The Association has played a pivotal role in the scientific management and quality improvement of Library and Information system (ILS) in the State. For creating necessary public opinion in matters of policy relating to library and library services in the state, the Association so far held several seminars and conferences which in turn help the Government to formulate policies on different aspects of library services. The achievement of KLA spanning over a period of more than four decades of steady progress is well reflected in the development history of library movement in Kerala. The role played by KLA in various Reforms Committees especially in the academic sector needs special mention. It has recently started KLA-CPD centre to impart training to the library professionals to equip them in modern line.

Fr. Jose Viruppel

Fr Jose Viruppel, a member of the Viruppel family, was born to Sri V M Joseph and Smt. Cathrina Joseph on 20th April 1957, at Kokkadu, a village situated between Kottarakkara and Punalur. He has a brother and a sister.



He had his primary education at Government L P School, Kokkadu and later moved to the R V High School, Valakom, Kottarakkara for his high school education. Fr Viruppel joined the S F S College at Nagpur and was the first rank holder in BA English Literature. He took post-graduation in English Literature from Agra University, Bachelor's Degree in Library and Information Science from Aligarh University and Master's in Library and Information Science and M Phil from the Delhi University. He qualified the National Eligibility Test of the University Grants Commission in 1992.

After studying Theology from the St Charles Seminary, Nagpur, Fr. Viruppel was ordained as priest on 31st March 1986 and served as Priest in a number of churches. He has also associated with several committees and councils in connection with the church.

Fr Viruppel's career as Librarian began in the year 1992 at the St. Berchmans College, Changanacherry. His initiation to start the Department of Library Science at St. Berchmans College and hold the position as Director of the Department from the year 2002, has enabled him to contribute a lot in moulding good librarians for the future. He has always welcomed new initiatives and encouraged young librarians to come forward with programmes and seminars.

With regard to his association with professional organisations, Fr. Viruppel is a life member of Kerala Library Association (KLA) and Indian Association of Special Libraries and Information Centre (IASLIC). He has been the President of the Kerala Library Association – Kottayam Region for three consequent terms. He also holds the position of President of Indian Academic Library Association (IALA), Kerala Region and All Kerala College Qualified Library Association (AKCQLA).

The Kottayam Region of Kerala Library Association has been fortunate to have been guided by the remarkable leadership of Fr. Jose Viruppel as the President of the Region. In the last few years, KLA Kottayam Region has also been able to organise quite a number of programmes, for which he had warmly opened the doors of SB College to conduct some of the programmes. His enthusiasm and devotion to the profession and personal relationship with professional colleagues has made Fr Viruppel an renowned personality and a valuable asset to the Kottayam region.

On behalf of the contributors to this Festschrift, all well-wishers and professional colleagues, we wish Fr Jose Viruppel all success and prosperity in all his endeavours in the future.

Editors

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User's Approach in the H.T. Parekh Library, IFMR, Chennai: A Study

**M. Panduranga Swamy
Dr. Avineni Kishore**

Introduction

The operating philosophy of modern librarianship begins with user needs. Technological impediments have brought a dynamic change in the collection of resources of libraries as well as in the technique of information storage and retrieval practices in libraries. However, even today, the basic philosophy of librarianship to serve users remains the same. A library, as a social and service institution, has the responsibility to acquire knowledge and disseminate it to those who are in need of it. The true value of knowledge and the need for library resources and information services has been increasingly felt and realized in different spheres of human activity, more so in educational processes. A library is a social institution and reservoir of knowledge, and thus expects the users to be more disciplined and conscious of their responsibility in exercising the use and handling of documents. It is the responsibility of library staff as a whole to provide required information to the users. It further requires that they be user - need based, whatever may be the environment. Even with the application of information and communication technology (ICT) environment, they should ensure that users are able to derive optimum benefits from Information Technology. It is required that library professionals have to co-ordinate their efforts to offer total service to their users to attain quality management. The IFMR is considered as one of the leading management colleges for promotion of higher learning in the Chennai city.

Study Purpose and Rationale

The rapid development of scientific discoveries and knowledge has caused an unprecedented growth of literature. Consequent to the growth of literature in multifarious ways, it has become difficult for libraries to choose the right document for the right user, which is the prime motto of a library and to provide better library services to ensure satisfaction among the users. Furthermore, the price hike of documents and multidimensional requirements of the users have added service constraints to libraries. In view of these, it becomes pertinent to have a user studies programme of the library to add value to the change to current services to meet the changing interests of the users for meeting the changing interests of the users' communities.

The basic purpose of this study is to ascertain the attitude of the users in H.T. Parekh Library, IFMR, Chennai. Hence, a user study was conducted by the investigator to ascertain the use of resources of the library by faculty members and students. Furthermore, the purpose also speaks about the effectiveness of collection development, which suits users' needs.



Literature Review

Muthyalaiiah Chetty K.C Pusapati Rami Reddy and T. Ramachandra Naidu (2015) paper on role of librarian in providing information literacy among MBA & MCA students: a case study describes that majority (81.67%) of the MBA & MCA respondents visit the library for the purpose of to read newspapers, magazines & journals. Most of the (45.84 %) of the MBA & MCA respondent's attitude towards available information literacy in the library is helpful to succeeded in employment opportunities and further this study identified majority (78.33%) of the respondents satisfied in terms of the services of librarian with regard to required information providing promptly.

Mukesh Saikia and Anjan Gohain (2013) investigated the use of library resources, user's satisfaction on library resources & services and information seeking behaviors of the students and research scholars of Tezpur University. Authors found that 82.39 % (131) users borrowed text books, 79.87% (127) consulted journals and 75.47% (120) read Newspapers to meet their information needs. They identified library is playing vital role to meet multidimensional demands of students, and research scholar for information and knowledge. The authors felt that user guidance is necessary to help library users to meet their information needs and make users aware of the available library resources and services.

Sahail and Upadhyay (2012) studied the use of library resources by the students of University of Kalyani. Authors found that guidance in the use of library resources and services was necessary in helping students meet their informational needs. Authors also found that journals, text books and lecture notes were the most popular sources of information for the students. Authors suggested that the latest edition of text books and reference materials be added to the library collection and users be guided on using the resources of the library.

Ranganathan and Babu (2012) studied the awareness and use of library resources and services at Osmania University, Hyderabad. The author studied the adequacy of library resources, opinion on e-resources or print sources, reasons for using e-resources, satisfaction on sources of information provision.

Prabhavathi (2011) studied the information seeking behaviour of post Graduate students of SPMV, Tirupati to examine the information needs, seeking behaviour and availability of information resources that affects the information seeking pattern and communication process. Authors found that half of the respondents visited library everyday and main purpose of visiting the library was to prepare for examination. About 94.6% of respondents were using books to support their curriculum and examination. Author emphasized the need for orientation programme on library resources and services.

Rahiman and Tamizhchelvan (2011) investigated the information needs, use of information channels, information seeking process and information seeking behavior of the students of engineering colleges affiliated to Anna University.



Authors also investigated the sufficiency of the library resources and the levels of satisfaction on library services.

H.T. Parekh Library

The Institute for Financial Management and Research (IFMR), Chennai is one of India's most prestigious B- schools and research institutions. Established in 1970s, it is recognized by the Ministry of Finance. IFMR's mission has been focused on contribution to growth and development efforts in India with an emphasis on finance and management. IFMR also has several key partnerships with some of the leading international institutions and offers a stimulating and world class environment faculty and students alike.

The H.T. Parekh library, IFMR, is the centre for academic and professional knowledge resources and services that support the research and academic needs of the IFMR community. The library facilitates knowledge creation, discovery through its intranet electronic search platform and access to a wide array of research resources.

The library has different collections including Text Books, Print Periodicals, CDs/DVDs, Electronic Journals, Online Databases, Theses, Project Reports, and Bound Volumes. The library hosts a variety of campus activities including book exhibitions, book launches, workshops, as well as training and orientations for the IFMR in and out community. The functioning of the library is fully computerized using KOHA software.

Objectives

The specific objectives of the study are:

- To know the users' frequency and purpose of visiting the library.
- To find out the average time spent by the users in the library.
- To find out adequacy of library hours and library facilities & furniture.
- To know the awareness and level of satisfaction of users with the present library collection.
- To find out the frequently used library services by the users.
- To know the opinion of users towards library staff behaviour.
- To know the users' satisfaction with overall functions of the library.
- To suggest the ways and means for the improvement of the library services.

Research Methodology

To achieve the objectives of the study, survey method of research was adopted. A structured questionnaire was designed and used for collecting data from the users of the H.T. Parekh Library, IFMR B-School in the city of Chennai in India. The library has been selected purposefully as the investigator works in the same library as the Library Associate and is very much aware of the available facilities and has fair knowledge of the regular user community i.e. faculty and students. The



total users of H.T. Parekh Library were only 110; the researcher used census method for data collection to cover the total population.

Questionnaire was developed on Google docs and the same were sent to their personal mails along with a request letter explaining the importance and purpose of the study to the total users (110) of the H.T. Parekh Library. 20 faculty and 90 students were among them. However, in spite of sincere efforts the investigator received responses from faculty 15 (15.96%) and 79 (84.04%) from the students, total is 94 (91.57%) respondents.

Analysis & Interpretation

The views of the users were elicited through questionnaires. Questionnaires were analyzed and their results have been presented in the following tables and figures.

Table 1
Response Rate

Respondents	Questionnaire	
	Distributed	Received
Faculty	20	15
PGDM Students	90	79
Total	110	94

The above table shows the distribution of questionnaires to the library users of H.T. Parekh library, IFMR, Chennai. Over all 110 questionnaires are distributed to the total users, out of which 94 questionnaires were duly filled and received back.

Table 2
Gender wise distribution of respondents

Gender	Faculty	PGDM Students	Total
Male	11 (73.33%)	56 (70.89%)	67 (71.28%)
Female	04 (26.67%)	23 (29.11%)	27 (28.72%)
Total	15 (100%)	79 (100%)	94 (100%)

Table 2 exhibits that among 94 respondents, there were 67 male users against 27 female users. They represent 71.28% and 28.72% respectively. Thus it is observed that male users were more than female users.



Table 3
Frequency of visit to the library

Frequency	Faculty	PGDM Students	Total
Daily	2 (13.33%)	26 (32.91%)	28 (29.79%)
Weekly	6 (40.00%)	31 (39.24%)	37 (39.36%)
Twice in a Week	5 (33.33%)	17 (21.52%)	22 (23.40%)
Occasionally	2 (13.33%)	5 (6.33%)	7 (7.45%)
Total	15 (100%)	79 (100%)	94 (100%)

The frequency of the visits to the library is one index to judge the utilization of the library resources. If the users frequently visit the library it can be said that they are using the library more in comparison to those users who rarely visit the library. Table 3 reveals that 37(39.36%) users visited the library weekly, 28(29.79%) users visited library daily, 22(23.40%) users visited the library twice in a week, 7(7.45%) users visited the library occasionally.

Table 4
Purpose of visit to the library

Sl. No	Purpose	Faculty N=15	PGDM Students N = 79	Total N=94
1.	To borrow & return the documents	14 (93.33%)	79 (100%)	93 (98.94%)
2.	To prepare Class Notes	9 (60%)	54 (68.35%)	63 (67.02%)
3.	To Prepare for Competitive Exams	4 (26.67%)	49 (62.03%)	53 (56.38%)
4.	To refer Reference Documents	12 (80%)	64 (81.01%)	76 (80.85%)
5.	To access the electronic resources	11 (73.33%)	68 (86.08%)	79 (84.04%)
6.	To know the latest arrivals in a subject	15 (100%)	33 (41.77%)	48 (51.06%)
7.	To read Newspapers and Magazines	13 (86.67%)	76 (96.20%)	89 (94.68%)
8.	To read Print Journals	12 (80%)	71 (89.87%)	83 (88.30%)
9.	Others (Reprography, Printing & Scanning etc)	14 (93.33%)	76 (96.20%)	90 (95.74%)



The purpose of user's visit to the library was ascertained to find out whether they come to satisfy their information needs for research requirements or for general reading. Table 4 shows that majority of users i.e. 93(98.94%) visited the library for borrowing/returning the documents, 90(95.74%) users for other purposes like Reprography, Printing & Scanning etc. 89(94.68%) users visited the library for reading newspapers & magazines, 83(88.30%) for reading print journals, 79(84.04%) users visited the library to access the electronic resources, 76 (80.85) users to refer reference documents, 63(67.02) for preparing class notes and only 53(56.38) for preparing for competitive examinations.

Table 5
Time Spent in the Library

Sl. No	Time	Faculty	PGDM Students	Total
1.	30 Minutes	3 (20%)	7 (8.86%)	10 (10.64%)
2.	Less than an hour	5 (33.33%)	12 (15.19%)	17 (18.09%)
3.	One hour	3 (20%)	19 (24.05%)	22 (23.40%)
4.	1 – 2 hours	2 (13.33%)	28 (35.44%)	30 (31.91%)
5.	More than two hours	2 (13.33%)	13 (16.46%)	15 (15.96%)
6.	Total	15 (100%)	79 (100%)	94 (100%)

The time spent in the library is another indicator to judge the utilization of the library resources. If the users spent more time in the library it can be said that they are using the library more in comparison to those users who rarely visit the library. Table 5 demonstrates that out of 94 respondents, 30(31.91%) spent between one to two hours in the library, 22 (23.40%) spent one hour, 17 (18.09%) spent less than one hour, 15 (15.96%) spent more than two hours, and only 10 (10.64%) users spent 30 minutes time in the library. However the faculty and students were spent approximately one hour time in the library.

Table 6
Adequacy of library hours

Adequacy	Faculty	PGDM Students	Total
Yes	13 (86.67%)	62 (78.48%)	75 (79.79%)
No	2 (13.33%)	17 (21.52%)	19 (20.21%)
Total	15 (100%)	79 (100%)	94 (100%)



Adequate library hours facilitate the use of the resources of the library. The users were asked to indicate if the library hours were adequate for study and research. The response has been tabulated. The analysis (Table 6) shows that out of 94 respondent's majority 75 (79.79%) users of all categories are satisfied with library hours while 19 (20.21%) respondents were not satisfied and are demanding that library should be kept open few more hours.

Table 7

Adequacy of library facilities & furniture

Library facilities & furniture	Faculty N=15	PGDM Students N = 79	Total N=94
Reading Room Space	12 (80%)	56 (70.89%)	68 (72.34%)
Lighting & Ventilation	9 (60%)	62 (78.48%)	71 (75.53%)
Seating facility (Chairs & Tables)	7 (46.67%)	41 (51.90%)	48 (51.06%)
Drinking water facility	14 (93.33%)	73 (92.41%)	87 (92.55%)
Toilets	14 (93.33%)	69 (87.34%)	83 (88.30%)

Users' satisfactions with infrastructure facilities are important because reader's dissatisfaction means that the service provided by the library is not good. In order to promote the use of books it is advisable to have a functional building with provision for pleasant, natural and electrical light, soothing interior, good-looking furniture, comfortable chairs and other such facilities. They increase the use of books. Table 7 reveals that 87(92.55%) users are satisfied with drinking water facility available in the library, while 83 (88.30%) users are satisfied with toilets facility followed by 71(75.53%) users satisfied with lighting and ventilation, while 68 (72.34%) of the users satisfied with reading room space. Only 48 (51.06%) users satisfied with the seating facility (chairs & tables) available in the library.



*Table 8
Awareness of library collection*

Library collections and services	Faculty N = 15		PGDM Students N = 79	
	Yes	No	Yes	No
Text Books	15 (100%)	00 (0.00%)	79 (100%)	00 (0.00%)
Reference Books	13 (86.67%)	02 (13.33%)	68 (86.08%)	11 (13.92%)
Print Journals	15 (100%)	00 (0.00%)	73 (92.41%)	06 (07.59%)
Newspapers & Magazines	15 (100%)	00 (0.00%)	79 (100%)	00 (0.00%)
E - Journals & Online Databases	15 (100%)	00 (0.00%)	70 (88.61%)	09 (11.39%)
CDs / DVDs	11 (73.33%)	04 (26.67%)	64 (81.01%)	15 (18.99%)
Internet	15 (100%)	00 (0.00%)	79 (100%)	00 (0.00%)
Project Reports	13 (86.67%)	02 (13.33%)	81 (94.94%)	08 (10.13%)

Users' awareness about the library services is a pre-requisite for proper utilization of the library and its resources. Therefore the responses of the users in this regard have been analysed in Table 8. Table 8 indicates that all the users are aware and are using text books, newspapers, magazines and Internet. However, some of the users are not aware of the use of reference books, print journals, e - journals & online databases, CDs / DVDs, project reports in the library.



Table 9
Level of satisfaction on library collection

Library Collection	Highly Satisfied	Satisfied	Neither Satisfied Nor Dissatisfied	Not Satisfied	Can't Answer	Total
Text Books	74 (78.72%)	11 (11.70%)	3 (3.19%)	1 (1.06%)	5 (5.32%)	94 (100%)
Reference Books	63 (67.02%)	15 (15.96%)	12 (12.77%)	1 (1.06%)	3 (3.19%)	94 (100%)
Print Journals	31 (32.98%)	39 (41.49%)	15 (15.96%)	4 (4.26%)	5 (5.32%)	94 (100%)
Newspapers & Magazines	16 (17.02%)	75 (79.79%)	0 (0.00%)	0 (0.00%)	3 (3.19%)	94 (100%)
E - Journals	27 (28.72%)	39 (41.49%)	21 (22.34%)	5 (5.32%)	2 (2.13%)	94 (100%)
CDs / DVDs	24 (25.53%)	13 (13.83%)	26 (27.66%)	14 (14.89%)	17 (18.09%)	94 (100%)
Online Databases	17 (18.09%)	38 (40.43%)	28 (29.79%)	6 (6.38%)	5 (5.32%)	94 (100%)
Factual Databases	10 (10.64%)	27 (28.72%)	39 (41.49%)	4 (4.26%)	14 (14.89%)	94 (100%)
Project Reports	31 (32.98%)	16 (17.02%)	27 (28.72%)	16 (17.02%)	4 (4.26%)	94 (100%)

It is important to find out the image of the library in general and satisfaction with library collection in particular. Table 9 reveals that a large majority (67%) of the users were satisfied with reference books in the library.



Table 10
Library services

Library Services	Faculty N=15	PGDM Students N = 79	Total N = 94
Circulation Desk Service	12 (80%)	72 (91.14%)	84 (89.36%)
New Arrivals	14 (93.33%)	77 (97.47%)	91 (96.81%)
Reference Services	13 (86.67%)	62 (78.48%)	75 (79.79%)
Referral Services	9 (60%)	54 (68.35%)	63 (67.02%)
OPAC Services	12 (80%)	74 (93.67%)	86 (91.49%)
Reservation	10 (66.67%)	68 (86.08%)	78 (82.98%)
E-mail Services	15 (100%)	79 (100%)	94 (100%)
Telephone Services	15 (100%)	33 (41.77%)	48 (51.06%)
Printing & Scanning Services	15 (100%)	75 (94.94%)	90 (95.74%)
Inter Library Loan Services	6 (40%)	32 (40.51%)	38 (40.43%)

The basic function of the library is to provide services to its clientele efficiently and effectively. The focus of the study is services provided by the library especially 'reader services' with a view to find out the type, nature extent, etc. of services. Questions have been asked to elicit information through the questionnaire. The responses have been tabulated in Table 10. Table 10 depicts that all users were accessing e-mail services in the library, while 91(96.81%) users access new arrivals. Followed by 90 (95.74%) users access printing & scanning services, further followed by 86 (91.49%) OPAC services, 84 (89.36%) circulation desk services, 78 (82.98%) reservation services, 75 (79.79%) reference services, 63 (67.02%) referral services, 48 (51.06%) telephone services, 38 (40.43%) Inter Library Loan services.



Table 11
Behavior of library staff

Opinion	Faculty	PGDM Students	Total
Excellent	4 (26.67%)	23 (29.11%)	27 (28.72%)
Good	8 (53.33%)	47 (59.49%)	55 (58.51%)
Fair	2 (13.33%)	6 (7.59%)	8 (8.51%)
Average	1 (6.67%)	3 (3.80%)	4 (4.26%)
Total	15 (100%)	79 (100%)	94 (100%)

Most respondents are satisfied with the behavior and assistance provided by the library staff. Table 11 shows that majority 55 (58.51) of the users have rated the library staff behavior as 'good', while 27 (28.72) of users have rated the library staff behavior as 'excellent' and 8 (8.51) as 'fair'. Followed by 4 (4.26) user's who have rated overall behavior of the library staff as 'average' category.

Table 12
Satisfaction with overall functions of the library

Opinion	Faculty	PGDM Students	Total
Excellent	5 (33.33%)	21 (26.58%)	26 (27.66%)
Good	8 (53.33%)	46 (58.23%)	54 (57.45%)
Fair	1 (6.67%)	9 (11.39%)	10 (10.64%)
Average	1 (6.67%)	3 (3.80%)	4 (4.26%)
Total	15 (100%)	79 (100%)	94 (100%)

The above table shows that maximum 57.45 percentage of users have rated the functions of the library as 'good', while 27.66 % of users have rated the library as 'excellent', followed by 10.64% users who have rated overall function of the library as 'fair' category, while 4.26% rated 'average' to the library in terms of satisfaction and overall function. Consequently, it is found that maximum percentage of users have rated the library as 'good'.



Major findings

- Among 94 respondents, there were 67 (71.28%) male users against 27 (28.72%) are female users.
- Most of the 37(39.36%) users visited the library weekly.
- Majority of users i.e. 93(98.94%) visited the library for borrowing/returning the documents.
- Out of 94 respondents, 30(31.91%) spent between one to two hours in the library.
- Majority 75 (79.79%) users of all categories are satisfied with library hours.
- A large number of 87(92.55) users satisfied with drinking water facility available in the library.
- A less number of users are not aware and use reference books, print journals, E - journals & online databases, CDs / DVDs, project reports in the library.
- A large majority (67%) of the users were satisfied with reference books in the library.
- A large majority of the users were satisfied with overall available collection in the library.
- All users were accessing e-mail services in the library.
- Majority 55 (58.51%) users have rated the library staff behavior as 'good'.
- Most of the 57.45 percentage of the users have rated the functions of the library as 'good'.

Suggestions and Conclusions

A majority of users visit the library daily with the study purpose, to borrow books, to read newspapers, to prepare for competitive examination and to access Internet. It is, therefore suggested that more and latest books, periodicals/magazines and other printed and non-printed material should be added in the library so as to meet the requirements of the users.

Thus, it is being suggested that proper user education or library orientation programmes should be provided to the users. From time to time user studies may also be carried out in order to know the needs of users, the existing status and strength & weakness of library services with the intention to improve the existing situation and/or to provide the better services to users. Library should be get better the search of documents by most modern search techniques, and also lengthen the library network for the exchange of information. In order to promote the use of books it is advised to have a functional building with



provision for pleasant, natural and electrical light, soothing interior, good looking furniture, comfortable chairs and other such facilities. Glasses should be kept on the aqua guard so that users can drink water. It is therefore, suggested that library staff should be attentive, cheerful, and careful for books and readers. Library staff should also render helping hand to the readers.

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Transforming Librarians to Cybrarians

Humayoon Kabeer P.

Introduction

Libraries have been significantly transformed with the advent of Internet and the ability to provide resources to people who may never visit a physical building, but use resources intensively in their own homes or work places. The unimaginable developments in the information environment such as improved accessibility, interoperability and open access to educational materials has on one side facilitated the nature, role and services but on the other side pose a serious challenge to harness the technology and provide state of the art services, otherwise librarians will be left behind in the transformational phase. Libraries are changing dramatically from print to e-environment like printed library card catalogues have been replaced by computerized OPAC system and a variety of web-based graphical user interface (GUI) functions, online accessibility for 24/7, availability of numerous e-databases, e-journals, information resources, services for users. To face the new information explosion, academic libraries will have to meet even more challenges and opportunities to serve students, faculty, staff, scholars and other users, all with much expectations and many more demands triggered by the growth of emerging and cutting edge technologies in academic learning environments. Academic libraries are adopting emerging and cutting edge technologies, new array of services with packaging and repackaging according to the needs and demands but still many specific functions have to be inducted to really justify the essence of service oriented philosophy of libraries.

The emergence of new technologies transformed libraries drastically that traditional libraries are now turning into cybraries. A marking transformation can be observed in all areas of library activities and resources as illustrated below.

Transformation of Library Resources

Table 1. Transformation of resources in libraries

Print Resources	Electronic Resources
Books	E-books
Rare books	E-text archives
Journals	E-journals
Manual/Print Catalogues	Databases/ OPAC
Collection of printed theses/reports/ conference proceedings	E-theses/CD-ROM databases/Digital libraries/Institutional Repositories



Table 2. Transformation of services in libraries

Transformation of Library Services

Traditional Services	New Services
Circulation of books	Providing access and download of electronic resources
Collection development	Development of e-sources
Manual processing of books	Computerised processing
Reference service	Searching databases for information Blogs / Websites
Bulletin Boards	Social networking sites

Thus libraries are experiencing transformation in all sides and so is the case of librarian. In the electronic environment, librarian's role comprises at least three major working areas. Librarian offer services for those users who want to be guided to the most suitable information resources; Librarian provides research assistance for those who prefer to conduct searches themselves and only turn to librarians in case their repertoire of search and retrieval techniques did not lead to satisfying results; and librarians closely collaborate with Information Technology (IT) departments that design new and enhance existing systems.

Transforming librarians to cybrarians

The word 'Cybrarian' is a compound term of Cyber and Librarian. A Cybrarian is a library and information science professional who specializes in using the internet as a resource tool. A Cybrarian can be defined as an information specialist who deals with more of a web-content, in order to reach his targeted user group. He always updates his knowledge of information resources, information handling tools and the fast changing needs of users as a result of net revolution or web revolution. A Cybrarian is a person who integrates, infuses and injects Internet Technology into education. The Cybrarian is more than a computer technician, who maintains the hardware and software. He is more than a teacher who uses the internet in the class room. He is more than a webmaster, who maintains a World Wide Web presence. A Cybrarian is community oriented which means the Cybrarian helps families, business and government and integrates the internet into the educational environment in a coordinated effort.

The traditional libraries are becoming hybrid libraries and hybrid libraries are becoming digital libraries at a rapid speed in case of special, research and academic libraries. The speed with which they are moving towards net libraries is rather slow in public libraries with reference to India. The comparable scenario with the developed world is entirely different. Even the public libraries have become hybrid libraries long back and are able to become full-fledged net libraries at a fast pace, due to governmental support and enormous funding, trained manpower in those advanced countries.



A traditional librarian has to improve his technology skills in order to become a Cybrarian. The vision for Cybrarian is therefore to encourage increased internet usage, to provide easy access to information and knowledge services that will be of interest to target users. When IT departments design new databases, application programmes and user interfaces, librarians should be able to explain precisely to the users, how the programme works, how to make use of them in a better way etc.

Success of a cybrarian

Against the traditional library services, librarians now follow new directions like:

1. From library centred to information centred
2. From the library as an institution to the library as an information provider, and the librarians as a skilled information specialist functioning in an all related information environment
3. From using new technology for the automation of library functions to utilizing technology for the enhancement of information access and delivery of items not physically contained within the four walls of the library
4. From library networking for information provision to area networking for all types of information source providers
5. To succeed, a Cybrarian needs the following three key components:
6. The service and its benefits will need to be marketed to target users to raise their awareness as of it and encourage them to overcome initial barriers in trying the service.
7. Sufficient content will need to be accessed and reorganised in order to create services that appeal to users, satisfy their needs for particular information and encourage them to use the service regularly and progressively; and
8. Technology will need to be brought together to manage and deliver the services, to allow users simply to search for and find the information they are looking for, and to present information in a manner that accommodates users with various special needs.

Characteristics of a cybrarian

The key characteristic feature of the Cybrarian is his superiority in the knowledge of using new technological devices, especially computer technologies and his wide knowledge in the area of web resources and skills in accessing information and repackaging or tailoring it to meet the target groups. A Cybrarian easily manages remote patrons by providing apt information from web resources. He is able to evaluate the web contents so that his patrons will not be cheated by wrong information. A Cybrarian is well aware of various types of software and is able to select the right ones for performing his information activities.



Skills and knowledge requirement of a cybrarian

Skills needed by a cybrarian

Following are some of the essential skills a Cybrarian should have:

- Technology skills
- Electronic presentation skills
- Web-navigation skills
- Web site design skills
- E-mail management skills
- Word processing skills
- Database skills
- File management skills
- Soft skills

Knowledge needed by a cybrarian

A Cybrarian should have knowledge of the following:

- Computer Networks
- Internet Resources
- Deep-web resources
- E-publishing
- E-books
- Downloading software from web
- PDAs
- Computer-Related storage devices
- Copyright issues
- Scanning devices
- Data security etc.



Becoming a cybrarian: challenges

A librarian cannot be transformed to a cybrarian in a day or two. There are many challenges that come across a librarian while becoming a cybrarian. The librarian, who being a custodian of printed or hybrid resources, has to change from custodianship to disseminator of information sources, because a cybrarian is more interested in uninterrupted access of information than having ownership of resources. A traditional librarian is always dealing with patrons who come to library, where as a cybrarian has to deal with remote patrons. For that, constant updating of technical skills and knowledge of source of information should be a habitual process of the librarian. Another area of challenge before a cybrarian is ascertaining the authenticity of the resources accessed and knowledge of copy right issues while dealing with web resources.

Conclusion

All the library professionals shall tune themselves to the changing information world. Unless a librarian becomes master of modern information communication technology, he will be overtaken by computer professionals. Thorough knowledge of web resources, their access, repackaging and timely serving to the patrons, who sit remotely, are the key points that a cybrarian should be mastered in.

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Union catalogue of libraries of institutions of higher education in Kerala: A proposal

Sanjo Jose

Introduction

A union catalogue is a list of the combined holdings of several libraries. Union catalogues contain bibliographic descriptions, location and holdings information of the resources in the member libraries. The resources may include any kind of documents like books, monographs, serials, cartographic materials, electronic media, materials intended for people with special needs like Braille, talking books, captioned videos etc. Union catalogues help the librarians as well as users to locate and request materials from other libraries through inter-library loan or document delivery service.

Major union catalogues

OCLC WorldCat

OCLC WorldCat (<https://www.worldcat.org/>) is the best known and largest union catalogue available today. OCLC was started in 1967 as Ohio College Library Center, by a small group of library leaders with an ambitious public purpose to improve access to the information held in libraries around the globe and find ways to reduce costs for libraries through collaboration. Today, the members share the ownership, assets and governance. Its member libraries cooperatively produce and maintain WorldCat, with more than 332 million bibliographic records that represent more than 2.2 billion items in over 485 languages and dialects, held by more than 72,000 participating libraries in 170 countries and territories of the world (as on 13th February, 2015).

AMICUS

AMICUS (<http://amicus.collectionscanada.gc.ca/aaweb/aalogine.htm>) is the national catalogue listing of the holdings of libraries across Canada. As a national catalogue, AMICUS not only shows the published materials held at Library and Archives Canada (LAC) but also those located in over 1300 libraries across Canada. AMICUS contains over 30 million records for books, magazines, newspapers, government documents, theses, sound recordings, maps, electronic texts as well as items in braille and large print.



Copac

Copac (<http://copac.ac.uk/>) exposes rare and unique research material by bringing together the catalogues of 90 major university libraries, and specialist research libraries in United Kingdom and Ireland.

SUNCAT

SUNCAT (<http://suncat.ac.uk/search>) is the Serials Union Catalogue for the UK research community to locate serials held in libraries across the UK.

Catalogue collectif de France

Catalogue collectif de France, (Union Catalog of France) (<http://ccfr.bnf.fr/portailccfr/jsp/index.jsp>) contains bibliographic records of more than 30 million documents from about 5000 libraries.

IndCat

IndCat: Online Union Catalogue of Indian Universities (<http://indcat.inflibnet.ac.in>) is the unified online library catalogue of books, theses and journals available in major university libraries in India. The union database contains bibliographic description, location and holdings information for books, journals and theses in all subject areas available in more than 160 university libraries across the country. A Web-based interface is designed to provide easy access to the merged catalogues. The IndCat is a major source of bibliographic information that can be used for inter-library loan, collections development as well as for copy cataloguing and retro-conversion of bibliographic records. IndCat (Book Database) has 75.70 Lakhs unique records of 151 universities (as on 13th February, 2015). IndCat consists three components available in open access to users and librarians.

Books: Over twelve millions bibliographical records of books from 160 university libraries.

Theses: Doctoral theses submitted to various Indian universities

Serials: Currently subscribed journals by the universities and holdings information on serials available in various university libraries

The bibliographic records in the libraries of the following universities in Kerala are included in IndCat.

- Cochin University of Science and Technology
- Kannur University
- Mahatma Gandhi University
- National University of Advanced Legal Studies
- Sree Sankaracharya University of Sanskrit
- University of Calicut
- University of Kerala



In addition to these, the bibliographic records of library of Sree Chitra Tirunal Institute for Medical Science & Technology, which is an Institute of National Importance, is also included in IndCat.

AgriCat

AgriCat (<http://eग्रान्थ.ac.in/AgriCat.html>) is a union catalogue of the holdings of 12 major libraries of the Indian Council of Agricultural Research (ICAR) institutes and State Agricultural Universities combined together. Visakhi and Nabi Hassan (2013) discuss about the attempts made by ICAR to develop AgriCat in partnership with OCLC, Ohio under “eGranth Project” funded by World Bank and the tools, technologies, standards, software used in creating and developing it.

National Union Catalogue of Scientific Serials in India

National Union Catalogue of Scientific Serials in India (NUCSSI) (<http://124.124.221.23/>) is the first indigenous database that serves as a tool to access journal holdings information. NUCSSI is a data repository of a large number of unique journal titles and library holdings belonging to major universities, science and technology institutions, research and development units of industries, higher institutes like IISc, IITs and professional institutes spread all over the country. NUCSSI contains bibliographic records of 45549 journals which has a total of 264981 holdings distributed in 565 libraries in different parts of India (as on 13th February, 2015).

Union catalogue of journals in Indian Council of Medical Research libraries

Union catalogue of journals in Indian Council of Medical Research libraries which was compiled in 2006 can be accessed at http://www.icmr.nic.in/icmrnews/union_catalogue/union_catalogue.htm. Any update of this catalogue could not be found online.

Granthalaya.org

Granthalaya.org (<http://ग्रन्थालया.org/>) is a project of Vidya Prasarak Mandal, Thane which intends to create bibliographic union database of holdings of all the public libraries in Konkan area including Thane.

Kerala Agricultural University Library Catalogue

Kerala Agricultural University is providing a union catalogue of its central library and libraries of constituent colleges (<http://14.139.185.57/>). The holdings of the university library and college libraries are catalogued in AgriCat.



Mahatma Gandhi University Library Union Catalogue

Mahatma Gandhi University Library Union Catalogue Section is engaged in the process of developing a union catalogue of books of the four university library study centres and 30 teaching department libraries.

Cochin University of Science and Technology Library Union Catalogue

Cochin University of Science and Technology Library Union Catalogue is in stage of development.

Literature review

Powell (1991) said that “resource sharing, in the interlibrary lending arena in developing countries is a myth”. In the context of academic libraries in Kerala, it is still a truth even after 24 years.

Harish Chandra (2002) was in favour of networking of engineering college libraries for effective resource sharing and he emphasised the creation of a union catalogue of participating libraries.

Mohan (2002) proposed KOCHINET for the sharing of resources among libraries and creation of union catalogue of periodicals and books in his paper to avoid the duplication of subscription of journals by some special libraries of Cochin City. Sreekumar and Vijayakumar (2008) suggested preparing an online union catalogue of collections in individual libraries as part of their proposed Kerala Libraries Network (KELNET). They opined it will improve bibliographic control in Kerala state and an effective inter-library loan agreement among participating libraries will supplement it and enable the users to get the documents at their individual library locations.

In his proposal for re-orienting the department libraries of Schools of University of Kerala, Suresh Kumar (2013) suggested the establishment of a union catalogue. Jayakrishnan (2013) has proposed Kerala Public Library Network (KPLNET) under the management of Kerala State Library Council and preparation of online union catalogue of collections in the public libraries of Kerala.

Benefits of union catalogue

There may be a lot of costly resources available in the libraries of nearby institutions, which may be divided just by compound walls. It is a wastage of resources to duplicate them, which can be wisely utilised for the acquisition of fresh titles which are not available within any of the libraries in the vicinity. This helps the libraries to direct their users beyond their walls, just as in the case of online resources. Union catalogues essentially help in the resource sharing programme or interlibrary loans. Without union catalogues, one cannot even think of interlibrary loan or sharing of resources.

Union catalogues also help in classification and cataloguing. It has been proved by OCLC Classify. Classify (<http://classify.oclc.org/classify2/>) is a FRBR-



based prototype designed to support the assignment of classification numbers and subject headings for books, DVDs, CDs, and other types of materials.

Efforts for data entry will be considerably reduced through the sharing of bibliographic records.

Institutions of higher education in Kerala

Kerala is blessed with a number of higher education institutions. They include the Central University of Kerala, 12 state universities, 2 deemed universities and 12 autonomous institutions. In addition to these, Kerala has a got a number of colleges in various disciplines like arts and science, fine arts, medicine, engineering, law etc. Some schools in the state have very good libraries rich in documents in a variety of subjects. A large number of public libraries are attached with local self-governing bodies and other organizations also. But this article is limiting its scope to the libraries of higher education institutions, since most of them have technical experts to initiate an online public access catalogue.

Online Library catalogues

Although a large number of libraries are present in the highly literate state of Kerala, the use of library by the academia and public is low. Most of the people are not even aware of the libraries in their vicinity. There may be many reasons which one can point out for this phenomenon. One of the main reasons for underused libraries is the lack of online catalogues of the resource they possess. If the libraries will be able to indicate its prospective users that they are worth visiting by simply exposing their resources, the usage of libraries will increase a lot.

Proposal for a union catalogue of libraries of institutions of higher education in Kerala

A union catalogue of the libraries of institutions of higher education can be started at a local level by enthusiastic library professionals. The catalogue must be online and compatible with each other, which will allow local cooperation among the libraries for offering better services to its users. An online catalogue will also help to avoid duplication of expensive documents in nearby institutions. These online catalogues can be gradually developed into a district-wide and then into a state-wide catalogues for the benefit of users.

Conclusion

A pilot project has been initiated by the author, which proved the feasibility of the proposal. The technical details like the hardware, software, connectivity etc., organizational structure and steps in implementation of the project, prerequisites, terms and conditions for the participating members of the network etc. has to be drawn out after the completion of the pilot project. The project can be expanded to more areas of higher education and wider geographical areas with the aid of interested institutions those would like to be part of it for their own benefit and the society.



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National Library and Information Services Infrastructure for Scholarly Content(N-LIST): A Study

Mini G. Pillai

Aparna P.R.

Introduction

Information is a vital resource. In this knowledge era, easy access to information for each and every citizen is essential for the development of any nation. The UGC Infonet initiative of INFLIBNET was a great leap forward for the democratization of knowledge. Through this program, 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, N-LIST (National Library and Information Services Infrastructure for Scholarly content), a project jointly executed by UGC-INFONET Digital Library Consortium, INFLIBNET Centre, INDEST-AICTE Consortium and IIT Delhi was launched. It provides i) 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 ii) access to selected e-resources to colleges. The N-LIST project provides access to e-resources to students, researchers and faculty from colleges and other beneficiary institutions through server(s) installed at the INFLIBNET Centre. 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. This is meant for extending e-resources/ e-content to college libraries across India.

Objectives of N-LIST

The project has four objectives as follows i) to subscribe and provide access to select UGC-INFONET e-resources to technical institutions (IITs, IISc, HSERS and NITs) and monitor its usage. ii) to subscribe and provide access to selected INDEST e-resources to selected universities and monitor its usage. iii) to subscribe and provide access to selected e-resources to 6000 Government/Government aided colleges and monitor its usage. iv) to act as a Monitoring Agency for colleges and evaluate, promote, impart training and monitor all activities involved in the process of providing effective and efficient access to e-resources to colleges.

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 authors have conducted a study on the extent of usage of e-resources through N-LIST programme, by the faculty members of affiliated colleges in and around Kottayam. The study revealed that only 75% of the colleges have access to this large collection of knowledge and which is available at nominal cost. So the present paper is an attempt to create an awareness on N-LIST describing the special features, how to join the programme, resources available through the programme, subject allocation and issues of copyright based on a detailed examination of the website of N-LIST.

Review of literature

George, Pillai and Aparna (2015) in a study conducted among the faculty members of colleges in Kerala, try to collect opinions from them. Science Direct of Elsevier is the most wanted e-resource among them. Also availability e-resources in science subjects shows a slight edge ahead of others. Waghmode (2014) identifies the number of e-journals and e-books available in N-LIST. There is a tendency of some colleges to discontinue subscription to N-LIST. Madaan and Dhingra (2013) list the features and facilities of N-LIST in detail and recommends it as a boon to the college user community. Karmakar, Deka, Singh and Sarkar (2012) suggest to include syllabus/course oriented e-books in N-LIST and has identified certain problems like internet connectivity, frequent power failure and lack of training programmes in accessing e-resources. Sudhier (2011) opines that the provision of e-resources, which were available only to the university community, to colleges through N-LIST would surely enhance the quality of higher education system in India. Vasishth (2011) says that N-LIST is a means to satisfy Ranganathan's second law "Every reader his book". It can go a long way in meeting the research needs of the college community. Dr Manoj Kumar Sinha, Sucheta Bhattacharya and Sudip Bhattacharya (2011) studies the changes in library environment due the need and use of e-journals/ e-resources along with print versions. The paper tries to identify the various issues relating to access and bibliographic control of e-journals, access management problems, policy issues and e-journal consortium approach to subscribe scholarly peer reviewed journals. They are of the opinion that it should be made mandatory for colleges to register under N-LIST.

Current Status of N LIST programmes

As on March 25, 2015, 4475 colleges have registered with N-LIST, including 4069 Government/Government aided colleges covered under the section 12 B/2F of UGC Act as well as Non-Aided colleges . All e-resources subscribed for colleges under the N-LIST Project are now accessible to these 4011 colleges through the N-LIST website (<http://nlist.inflibnet.ac.in>).



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 accesses of 24 hours a day and 7 days a week

With advance online publication research papers are available online two months ahead of print collection

N-LIST Registration

Students, teachers, research scholars and staff of eligible colleges covered under Section 12B/ 2F of UGC Act and Non-Aided colleges (except Agriculture, Engineering, Management, Medical, Pharmacy, Dentistry and Nursing) can access the e-resources through the N-LIST programme. Colleges which are keen in accessing these resources should register themselves and this can be done by visiting the N-LIST website and clicking on "Register". The registration form can be filled and submitted online or it can be downloaded and sent by post. A copy of 12B/2F certificate issued by the UGC should be enclosed along with the registration form. It is mandatory to mention static IP Addresses of the college, if available, otherwise a list of authorized users including faculty, staff, students and researchers should also be sent. This is for providing user id and password to each individual and this is an added advantage of N-LIST programme. By providing user id and password, students and teachers can access the e-resources from anywhere and at any time, and this facility is not available in UGC Infonet.

Registered member colleges should pay Rs. 5000.00 (Rupees Five Thousand) as annual membership fee by bank draft in favour of "INFLIBNET-NLIST Account" payable at Ahmedabad.

Resources available in N-LIST

N-LIST is a large reservoir of knowledge spanning over almost all areas of knowledge. The table shows full text e-journals accessible through N-LIST along with their URL, number of titles available and subjects covered in each.



Table 1. E-journals available in N-LIST

Sl. No.	E-Journals with URL	No of titles	Subjects covered
1	American Institute of Physics http://journals.aip.org	18 titles	Physics, Mathematical physics
2	American Physical Society http://publish.aps.org/browse.html	10 titles	Physics
3	Annual Reviews http://arjournals.annualreviews.org/	33 titles	Biomedical/ Life sciences. Physical sciences, Social sciences
4	Cambridge University Press http://journals.cambridge.org/	224 titles	Covers many subjects
5	Economic and Political Weekly (EPW) http://www.epw.in/	1 titles	Economics, Politics
6	Indian Journals http://www.indianjournals.com/	180+ titles	21 subjects from Agriculture to Veterinary Science, but Literature is excluded
7	Institute of Physics http://iopscience.iop.org/	46 titles	Physics, Environmental science
8	JSTOR http://www.jstor.org/	2500+ titles	Area studies, Arts, Business, Humanities including Language and Literature, Medicine, Mathematics & Science, Social science
9	Oxford University Press http://www.oxfordjournals.org	206 titles	Covers many subjects
10	Royal Society of Chemistry http://www.rsc.org/Publishing/Journals/	29 titles	Chemistry
11	H. W. Wilson http://search.ebscohost.com	3000+ titles	GREENFILE-Research papers on all aspects of human impact to environment Library, Information science & Technology Abstracts with Full text

Besides these e-journals, more than 97000 e-books are also available in N-LIST in ten platforms which are shown in the table below.



Table 2. E-books available in N-LIST

Sl. No.	Publisher/Platform with URL	No of titles	Subjects covered
1	Cambridge Books Online http://ebooks.cambridge.org	1800 titles	Humanities, Social sciences, Science and Engineering, Medicine and English Language teaching
2	E-brary http://site.ebrary.com/lib/inflibnet	83000+ titles	Covers almost all subjects
3	EBSCoHost-Net Library http://search.ebscohost.com	936 titles	Do
4	Hindustan Book Agency http://hindustan.igpublish.com	65+ titles	Covers many subjects
5	Institute of South East Asian Studies(ISEAS) Books http://iseas.igpublish.com	382+ titles	Religion Social sciences, Technology, History & Geography
6	Oxford Scholarship http://www.oxfordscholarship.com/	1402+ titles	Covers many subjects
7	Springer eBooks http://link.springer.com .	2300 titles	Covers many subjects except Literature
8	Sage Publication eBooks http://knowledge.segepub.com .	1000 titles	Covers many subjects
9	Taylor Francis eBooks http://www.tandfebooks.com .	1800 titles	All subjects
10	Mylibrary-McGraw Hill http://lib.myilibrary.com/	1124 titles	All subjects

In addition to the full text journals and e-books, member institutions can access Math Sci Net(Bibliographic Database), Web of Science(e-resources for University Libraries), Project Muse, Nature(e-resources for IITs, NITS etc.) through N-LIST.

It is evident that science subjects outweigh other subject areas in e-resources provided in N-LIST. There is a high demand for Project Muse, which is a valuable source for humanities students and Science Direct of Elsevier, from the users of N-LIST.

N-LIST website offers many useful features and facilities for navigating through the large collection of e-journals and e-books as follows.



- Users can search 6000+ e-journals and 97000+ e-books with the help of navigation bar of the website
- Multiple user interfaces have been given to facilitate browsing through Table of Contents. Articles can be downloaded in different formats like PDF, HTML, Postscript by searching through subject terms, words in the title, author etc.3. Various search techniques are provided ranging from simple search to advanced search. A particular term can be searched in certain fields like Abstract, Journal title, Keyword, Article title, Author, References, Year of Publication, Volume Number, using Advanced Search. Boolean Searching, Wildcard and Truncation symbols have also been provided.
- e-mail alert facilities and RSS feeds are provided which help the users to keep themselves updated
- The INFLIBNET Centre has also initiated Inter Library Loan (ILL) services for the benefit of users from colleges enrolled under the N-LIST programme. All faculty, staff and students from member colleges can request journal articles and chapters from books that are not available through resources subscribed under the N-LIST. The requests for articles can be sent online using the Online ILL Request Form available on the website. This service is free of charge.

Copyright conditions in N-LIST

The INFLIBNET Consortium provides thousands of electronic journals to its member institutions by which full text resources and bibliographic databases can be accessed. Each publisher has its own Licence Agreements, the terms and conditions of which are specified in the agreement signed by the publisher and the INFLIBNET Centre. The licence for electronic resources includes two types of restrictions namely, 1) who can use the resources 2) how the resources can be used. The users of N-LIST consist of students, teachers, research scholars, staff and on site visitors of a college. The second restriction deals with how these resources can be effectively and fairly used. It is the duty of each individual to make sure that the resources are used for personal, educational and research purpose alone. Some of the terms and conditions are as follows.

- Systematic downloading is prohibited. The entire issue of a journal cannot be downloaded and many copies of the same article cannot be printed.
- Distribution of electronic content is subject to certain restrictions. An article can be sent to a colleague by e-mail. But forwarding the same to a group of people for example, by a mailing list is not allowed.
- The user should ensure that the resources are used for personal, educational, and research purpose only.
- Users can include the articles in course pack, but taking multiple copies of the same and distributing is prohibited.
- Users can take phrases and quotations from the articles and cite the source of



information. But they are prohibited from copying large quantities of data from an article or chapters of books.

In short the do's and don'ts in using the N-LIST programme is given as a table.

DOs	DON'Ts
Viewing, downloading, saving, and printing a copy	Systematic or programmatic downloading
Sending the downloaded electronic content to an authorised user (i.e current faculty, staff or student) by e-mail	Forwarding the downloaded electronic content to a group of unauthorised users (through a mailing list or bulletin boards)
Use of resources for personal, educational, and research purposes	Use of resources for commercial gain (reselling, redistributing or republishing)
Posting the URL to the publisher's version of the article to a class website (containing only authorised users)	Posting the URL to the publisher's version or PDF version of an article to an open class website (containing unauthorised users)

Copyright violation is viewed as a serious crime and the following actions are initiated against the yard birds. Publishers track the use of their electronic resources in terms of number of downloads made by subscribing institution. Breaches of the license agreement with publishers could result in the suspension of access to the resources for the member institutions. The access is stopped not only for journals where licence agreement was violated but for all journals by the same publisher. Moreover, the access is suspended not only for the individual violator but for the entire institution.

Conclusion

The N-LIST Programme has been acclaimed as the most trusted collection of e-resources within a short span of time and colleges are being enriched with the e-resources available through the Programme. It 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. Universities have conducted training programmes for the Principals and Librarians of colleges at the time of inception of the Programme. But as new users are being registered, there is a heavy demand for more training programmes. 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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Newly Garbed Libraries

Patricia Robin

Introduction

The word 'Silence' is mandatory with the library. There is nothing surprising or questionable about it, because a library is a haven of peace and abode of sanctity. People walk in with the intention of spending a few hours concentrating on their beloved books. Students preparing for their exams find this a place most congenial for them. Another remarkable thing is that there are people who walk into the library, take up a book, start reading it and then is just carried away by their thoughts. Perhaps this might give a feel that the purpose of the library is not served. But remember, that particular person gains, peace of mind. After all, even when reading and its expected effects are not taking place, he undoubtedly finds peace of mind in the library.

The conventional pattern of the library is somewhat the same all over the world. The silence maintained in the library is mandatory. Avoiding of eatables and drinks are also observed by the visitors of the library. But today we find a lot of libraries making compromise in these areas. One main reason propagated is that innumerable restrictions alienate readers from the library. The existence of the library is dependent on its users. So to maintain the longevity of libraries, compromises are permitted from the side of the concerned authorities.

Moreover a perfect understanding has crept in that 'Changes are inevitable'. So a lot of changes, sometimes strange ones are finding place in the libraries. This makes the library look attired in a fanciful way or to put it better 'newly garbed'. Let's check into a few of the kind.

Talking Area

Imposing 'silence' causes irritation to a lot of people. In the first place they are not self-trained to demarcate the areas, where they are allowed to talk and where they should not. They just take up the feel that one of the fundamental rights have been abducted from them. A few others, even though are aware of what is expected of them, fall into a coffee shop feeling, when seated around the table.

Numerous reasons like the above play a role in alienating the visitors to the library. All over the world several innovative ideas are coming up to attract the readers to the library. One such compromise is the 'Talking Area' in the library. Amidst reading when people feel congested, cramped and restless due to the silence which they are forced to observe, they walk into this area. The very feel that one is free to talk, walk and shout, is a great relief (UCS an Diego Library, 2010), (University of Mississippi Libraries, 2014).

(Maybe the word 'talking area' is a slight exaggeration. It could be an area



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allocated in the library to use mobile phones – because in today's ambience mobile phones are inevitable than oxygen supply, or the space one could use to discuss with his friend on what he had been reading, and above all to relieve himself from the shackles of strict silence). In several libraries, one particular floor or a zone of the library is meant as 'Group study Space' where discussion in low volume is permissible (University of Nebraska-Lincoln, 2015).

As long as these talking areas do not disturb the readers of the library and proves to attract more visitors to the library, it is always welcome. Libraries keep going depending on the number of visitors, it has been able to maintain or enhance. If the 'talking area' is an added attribute to the sustenance of the library, then why not promote it.

Snooze Rooms

People doze off while reading. It is quite natural. But when it happens in a library, one becomes a butt of ridicule. On such an occasion, the normal reaction is to walk out of the library. The purpose of being in the library is defeated. A nap of 10-20 minutes would have supplied a renewed energy to the person. He could have continued reading for long hours after that. Just because he dozed off, he had to stop reading and leave (New, 2014).

What if he was allowed to sleep for a few minutes in the library? This thought gave rise to 'sleeping pods' or 'snooze rooms' in the library (Waxman, 2014), (Wynne, 2014). Especially in libraries where students come to learn for long hours, this facility is highly appreciated.

Studies have proved that it is not long hours of sleep that is necessary, but sleeping at those crucial moments when the body is tempted to do so. Hence this facility upholds the health factor of the reader community too.

Refreshments

Another interesting sight with the libraries is that it is slowly acquiring the on looks of a coffee shop. Reading for long hours creates satiety. At home or in a library it is the same. If at home, one moves around for some time, fixes a coffee, and enjoys it over the book. If the same kind of urge occurs in the library, the only option is to wind up reading and walk away in search of a canteen, or a coffee vending machine (Brewer, 2013). When one remains in the library for long hours especially during exam time, hunger too creeps in. The cost paid for all this is the curtain fall of intense reading. So these days it is a familiar sight of libraries having coffee vending machines along with counters displaying snack items (Lu, 2008), Harvard Law School Library, 2013).

There was a time when library professionals and those associated with the library strongly thought that no kind of eatables were allowed into the library. The thought was thoroughly logical. Any kind of eating stuff could attract rats, ants, flies and any other kind of insects into the library. They undoubtedly will cause damage to the books and the loss may be beyond compensation (MIT Libraries,



2015).

Conclusion

To run with the times is the motto of the modern world. What was thought of as taboo a few days ago is of great welcome today. Rather than of an external urge, these new attributes are inevitable. Perhaps it can be titled as a 'Marketing Tantra'. There has been a big hue and cry, that the reading habit in people are diminishing and the libraries all over the world is taking its last breath. To an extent the situation is apprehensible. Hence all new possible steps are introduced not only to avoid the alienation of the readers from the library, but also to attract them to the maximum. And the main thought goes in the direction that no kind of need, urge or restriction would drive the reader to quit the library.

Modern technology, equipment and accessibility is challenging the existence of the libraries. There was a time when people were puzzled while searching for information - if not in the library, then where? But today there are several other alternatives. Hence a simple no would define the destiny of a library. Innovations and adaptations adopted out of helplessness.

But who reveals the fact??? These are all embellishments happening in the library. The old libraries attired in new garb. The necessity of the day is to cater to the improved needs of the reader community.

If the 'Marketing Tantra' is in this direction, don't be dumbstruck, very soon we may have a pharmacy associated with the library, maybe a 24/7 doctor's service too may be availed. Let's make sure that the reader may not walk away just because he has got a temperature, a headache or a cough which he thinks might disturb others. It is high time that each librarian started thinking about adding such unheard facilities to the libraries

If one of the genre can be thought of, why hesitate to implement it – It will make the library different from any other library in this world.

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Likes, Comments & Shares: The role of Facebook Pages in Libraries

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The Internet offers a range of free and sophisticated tools that can be adapted by libraries for use in multiple ways, including user services, library promotion, and information literacy training. Social networking sites quickly become a popular subject of study in academic circles, in large part because of their viral popularity. Libraries are utilizing social networking communities as marketing platforms, tools for outreach, and networking venues. Due to their enormous popularity with the general public, they offer libraries a unique opportunity to interact with patrons in their own space. Facebook is an everyday activity for most of the Internet users. It can outreach other existing services and became popular widely.

Facebook

Facebook (<http://www.facebook.com>) is the largest social network developed in 2004 by the Harvard University student Mark Zuckerberg, had more than 1.32 billion global monthly active users, including over one billion mobile monthly active users in 2014. Their motto is "Giving people the power to share and make the world more open and connected" (Facebook, 2010). The site's minimum age is 13, but teens represent only a minority population on Facebook. It's used by a lot of adults, certainly including parents. But not just individuals – Facebook's also used by businesses, organizations and governments all over the world, to send marketing messages, seek charitable funding and communicate with customers and constituents. Users share a variety of information about themselves on their Facebook profiles, including photos, contact information, and tastes in movies and books.

Library Facebook Pages

A Facebook Page, sometimes referred to as a "Fan Page," as an one-page meeting place, with information, links, a message forum box, RSS etc. Facebook pages make it possible for organizations, concepts, and events to have representation in Facebook. Facebook pages also have added benefits that make them better for organizations such as libraries. Users can become "Fans" of a Facebook page, thereby indicating their interest in the page's topic. Fans can then receive informative updates as the page is updated or as special notices are posted by the page's administrator, which makes managing a library's page easy. Because individual librarians can sign in with their own profile to edit the library's page, they need to keep track of less log-in information.



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By creating a Facebook page, libraries can actively take part in the everyday online activities of its users by communicating with them through less formal channels. Once an individual becomes a Fan of a library page, it is likely that the user's Friends will see this on their news feeds. This visibility makes it likely that other users will become Fans at the same time. The organic social growth of a Facebook page is augmented by regularly updating content, advertising, and using Facebook to organize events, discussions, and the dissemination of media like photos and videos.

A search in Facebook in December 2014 for the terms 'library' revealed over 100 Facebook pages have currently been created and some of them were verified pages. The selected library verified pages with the highest number of fans include:

Library of Congress: <https://www.facebook.com/libraryofcongress>

NYPL The New York Public Library: <https://www.facebook.com/nypl>

The British Library: <https://www.facebook.com/britishlibrary>

Free Library of Philadelphia: <https://www.facebook.com/freelibrary>

University of Waikato: <https://www.facebook.com/WaikatoUniversity>

To create a Library Facebook Page:

- Log into Facebook
- Go to [facebook.com /pages/create](https://www.facebook.com/pages/create).
- Click to choose a Page category.
- Select a more specific category from the drop down menu and fill out the required information.
- Click Get Started and follow the on-screen instructions.

Studies of Facebook accounts of libraries

Gavigan (2012) discussed how students can learn life lessons with a socially connected school library. According to the author, a study has showed that school librarians are more likely to use social-networking tools for personal, professional, and classroom use than teachers and principals. The author adds that school librarians using these tools are assuming leadership roles to provide students and teachers with authentic learning experiences in social media.

Harry (2012) proposed measures that can be used by academic libraries to gauge the impact of their Facebook activities and offers some tips on how to increase the viability of a library's Facebook page. The increase in the number of academic libraries with Facebook pages has been accompanied by a corresponding growth in attention to the uses of these pages in library conferences and in library literature. Yet there is a lack of reliable metrics which can be used to assess the strength of Facebook pages and their "return on investment" for libraries.



Huwe (2012) focused on the use of the online social networks Twitter and Facebook by libraries for collaboration on the Web. The use of the sites by the Institute for Research on Labor and Employment Library for its outreach initiatives, which included activist blogging and Twittering, is described. The role of Twitter and Facebook in a full-scale collaboration between library-based programmers and the Labor Center with regard to a healthcare calculator for the U.S. is also discussed.

Noa (2012) conducted a study to present an exploratory analysis of the use of Facebook in American public and academic libraries, with the purpose of understanding patterns of Facebook use in libraries. The research findings show that both kinds of libraries use the information section and the wall and that there is a difference in the use of other Facebook sections, which was surprisingly limited in both kinds of libraries. Research findings enable librarians and information scientists to better understand the Facebook phenomenon in different kinds of libraries.

Anne (2011) shared her thoughts about Facebook and explains its potential as a revolutionary tool for librarians. Facebook may well be one of the best teaching tools available to librarians today. For example, it can be used to teach students the concepts of information literacy much more clearly. The author experimented with a course entitled "LIB 103: Introduction to Library Research and Technology" in her library at the University of North Carolina-Wilmington, applying the concepts that worked through her "one shot" teaching sessions. This article enumerates a few of the concepts that the author found easy enough for students to comprehend due to their familiarity with Facebook.

Use of Facebook Pages in Libraries

Facebook pages provide the platform for libraries to communicate and maintain relationships with their members. In the coming years, people will definitely ask whether libraries have facebook pages, they need to like that page and get updates. Various studies have been conducted in many countries on library Facebook pages to analyse how they utilise this tool to promote their services, resources and events. India is one of the leading countries based on number of facebook users (108.9 million). Facebook platform offers an opportunity for libraries to engage and interact with users through posts and interactions.



Leading countries based on number of Facebook users as of May 2014 (in millions)

The statistic shows the leading countries ranked according to their number of Facebook users as of May 2014. During that month, 70.5 million Brazilian users were registered on the social networking site. Facebook's website offers various activities such as connecting with people or sharing photos.

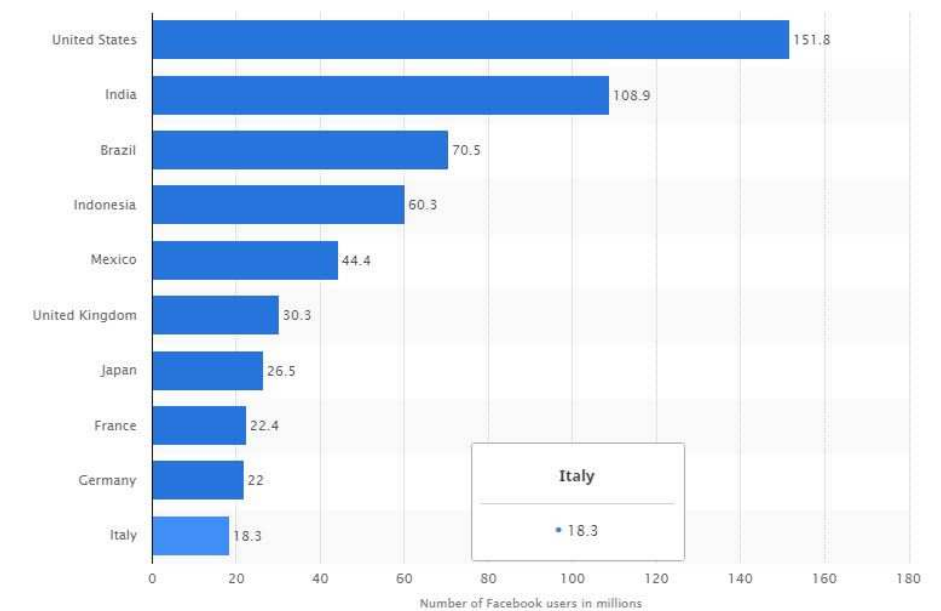


Fig 1. Leading countries based on number of Facebook users

Libraries can make use of Facebook to introduce library resources and services, provide virtual reference service, build circle of friends and establish cooperation, which will reduce distance between libraries and users, build deeper relationship with users and enhance the service intimacy and confidence. Libraries need to build an innovative, cooperative, and highly interactive location to provide users with a shared platform for the realization of group interaction. Users can conveniently share their own personal collections and acquisition information from other users' collections. Users can even collect, classify and aggregate interesting network information, such as news, pictures, websites, information and reading experiences.

Now a days, it seems like everyone has a Facebook account. According to Wikipedia, 50% of those Facebook users actually log into their Facebook accounts every day. Librarians must know how to create their own library facebook page and they should have an idea about what should be the content. Facebook can play different wide roles based on the content put in the page, as posts. In the 21st century librarians should have sufficient IT knowledge, though not necessarily as much knowledge as IT professionals.



The Library of Congress, the world's largest library is using social media technologies and websites to engage the public with Library news, events, acquisitions and exhibits. Their social media sites are governed by the general rules of respectful civil discourse. The New York Public Library is the leading online public library worldwide, providing free and open access to more than 50 million items in its physical collections and electronic resources such as the Digital Gallery, eBooks, and online exhibitions. More than 17 million patrons visit the space annually and millions more around the globe use its resources.

The verified Facebook pages of Library of Congress and The New York Public Library is shown below.



Fig 2. Face book page of the Library of Congress



Fig 3. Face book page of The New York Public Library



The number of likes per page were analysed based on the selected libraries as on December 2014 is shown below

Table 1. No of Likes per page

SI No.	Library Facebook Page	No. of Likes
1	Library of Congress	223,795
2	NYPL The New York Public Library	209,920
3	The British Library	199,495
4	University of Waikato	33,241
5	Free Library of Philadelphia	19,599

Table one shows that the numbers of likes per page were more and it will increase time to time based on the posts/content to be posted on their Facebook page. A significant number of library posts were aimed to foster user activity in the form of likes, by posting interesting/useful links.

The number of daily visits per page as on December 2014 is shown below.

Table 2. Number of daily visits per page

SI No.	Library Facebook Page	No. of Visits
1	Library of Congress	87,874
2	NYPL The New York Public Library	110,226
3	The British Library	64,721
4	University of Waikato	26,766
5	Free Library of Philadelphia	10,854

Table two shows the number of daily visits of users. This shows communication and sharing of information at its best. Here, the New York Public Library had more visits while compared with Library of Congress. The number of visits increased because their posts were attracted by the users. Creating more posts does not mean more interactions but rather the types of postings matters. Posts from certain categories, i.e. interests, news and activities, generate more interactions. User postings generate more comments than library postings. These postings tend to be more conversational and informal; making it easier to connect with users and generate more interactions. So libraries could make more posts of interests, news and activities and leverage on user postings. Librarian can also post the new arrivals with selected cover pages and abstracts. They can share latest news, events, links etc.

Effective communication with library users will continue to be a key requirement for libraries to operate successfully, and in an increasingly digital age, social networking sites offer libraries the ability to achieve this by reaching users through the channels now preferred by many users.



Conclusion

A large number of libraries have a Facebook representation; only a small number of them are using it to its full potential. Only a few libraries are responsible for publishing majority of the content. Librarians must be aware that using Facebook as a tool requires a lot of attention, and, if a library cannot commit to updating its Facebook page at least once a week or more, it may not be a very useful or successful tool. Facebook would be a better tool for “active libraries,” or libraries that host a lot of events, exhibits, workshop, and other activities, as its top use is for announcements and marketing. In those cases, library would post content potentially interesting to users hoping it would foster user activity. A library can't afford lakhs of users at the same time, but a library facebook page can do.

Facebook can give new options to libraries in enhancing their online presence, as well as reaching their potential users. In a world where information is easily accessible, but its value is often dubious; library can act as an educator inside the Facebook environment and warn users on the potential threats and problems of information integrity. By actively participating inside their chosen social network, libraries can improve their image and gain many benefits, but the lack of proper strategy can often produce more damage than good.

Libraries feel positive about the future success of their Facebook presence. As life changing as Facebook has been, not only in the way we communicate but the way we share everything with each other, it has completely demolished any reason for us to meet in person or even call each other. The fifth law of library science says 'Library is a growing organism'. In this new generation can a library grow without its own Facebook page??

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Selection and Management of Linux operating System in Library and Information Centers

Vimal Kumar V.

Introduction

Linux is not a new entrant in the operating system market. In the initial stages of development Linux usage was confined with programmers and system administrators. Linux is becoming popular among common people and academic community despite the stigma developed due to lack of awareness. Free software movement and libraries have same vision in knowledge sharing. Libraries have started to use Linux operating system to run Open Source library management systems and digital libraries. Use of Linux operating system and open source applications can reduce total cost of ownership of library automation.

Popular Linux myths

Lot of myth is roaming around Linux operating system about its features and use. Those myths are pulling back prospective users from adopting Linux operating system. Myths are very popular among users who are planning to switch from other proprietary operating systems to Linux. Following are the popular Linux myths among computer users (Lee, 2010):

- Linux is too difficult to learn and use
- Graphical interface is not good
- Extensive use of command line
- Application installation is difficult
- Videos games does not work with Linux

Linux myths were true to certain extent in the initial years of development. Linux has improved a lot with the help of volunteer effort of massive number of developers from various countries. Linux operating system had skinny graphical user interface before. Users had to apply various commands to execute various tasks in the absence of control interfaces. "Linux newbie's aren't coming from a blank slate; they're coming from Windows or Mac. If a user comes to Linux expecting it to behave like another operating system, yes, it will be difficult and frustrating" (Lee, 2014). Linux graphical interfaces have improved lot these days and new users can operate things without applying a single command. Installations of new applications were a hectic task for Linux users. Installation of application from source code was a common practice and it was considered as a tedious and time consuming process. Most of the Linux operating systems have developed user friendly interfaces for applications management (installation, removal) and system control. Linux users can select from various user friendly desktop interfaces:



GNOME, KDE, MATE, Cinnamon etc. Linux Mint operating system offers traditional desktop for users who would like to switch from Windows to Linux. Cinnamon and MATE and KDE desktop of Linux Mint operating system can give the feeling of traditional Windows desktop (Hoffman, 2015). Linux myths have already been debunked by the developers community with the introduction of novel features and user friendly desktop.

Linux and libraries

Lot of Open Source softwares were designed for libraries and organisations for their own purposes. Examples of such Open Source tools are Prospero by Eric Schnell, Yaz and Simple Server by Sebastian Hammer, OSCAR by Wally Grotophorst, bib2html by Stephane Galland etc. (Morgan, 2004). But that software usage was limited within few libraries and not much popular among library professionals.

Librarianship is a special domain and it possesses its own practices and skills. Usability problems may occur in the absence of librarian's involvement in software development process. Librarians and developers can collaborate in Open Source software projects for libraries. One of the main similarities between Open Source software and librarianship is that both respect peer review process. Open Source software always goes through peer review process, community inspect source code, finds errors and suggests solutions and improvements (Morgan, 2009). Popular Open Source library software projects are initiated by either libraries or universities with the support of library professionals. Koha and Evergreen software are best examples of direct involvement by libraries in the development process. Koha was initially started by Harowhenua Library Trust and now they act as patron of the project. Evergreen Library Management system was initially developed by the Georgia Public Library Service for Public Information Network for Electronic Services (PINES).

Library professionals have started to use Linux operating system for running Open Source softwares popular in libraries. Koha, Dspace, Greenstone, Eprints etc. are popular software candidates in libraries developed to run on Linux Operating system. Open Source software training programs for librarians have been organised in India by various educational institutions, professional bodies. Library professionals who have attended such training programmes could try Linux operating system during learning sessions. But very few training programmes were organised exclusively on Linux operating system for library professionals.



Benefits of Linux in libraries

Advantages of Linux operating system in libraries are many fold. Proprietary operating system like Microsoft Windows does not give full control to users. End users do not get the ownership of the proprietary operating system and they get the permission to only use the software. Any delay in license fee or annual maintenance fee can lead to end of the services from the company. In such situations end users of the operating system feel difficulty to get updates of coming versions. Linux operating systems are licensed under user friendly Free/Open Source licenses and offer full control over the software.

Data stored in applications software are very important for libraries. Application softwares are heavily depending on Operating systems. Problems with operating systems can harm the application software and data stored in it. Bibliographic, user and transaction data is very important in the context of library and information centers. Porting of data between two systems is very important in the context of upgrade and switching between library automation softwares. Majority of Open Source library application softwares are developed on LAMP stack: Linux, Apache server, MySQL database management system, and PHP/PERL programming language.

Linux operating systems are entirely free and it can reduce the total cost of ownership. Total cost of ownership of proprietary operating systems may go high due to the purchase of antivirus software and other non-free software. Investment in proprietary operating systems is a continuing process.

Users have full freedom on Linux operating system and give opportunity to try new things. Free/Open Source software community encourages innovation and allows users to participate in the development process. Linux operating systems can be used for various purposes. For example, Debian Linux is considered as a multipurpose operating system for various purposes. Users can convert Linux as desktop workstation, Internet server, intranet server, mail server, print server, development platform etc. Users have to buy separate editions of the same proprietary operating system for various functional uses. For example, operating system for desktop and server computers of Microsoft Windows are available as separate editions. Desktop edition of Windows operating system is not suitable for server computer. Price of server edition of Windows operating system is higher than desktop edition and users have to shell out more money to buy it.

Selection and management

Number of proprietary operating systems are few, so selection of one from few is easy. At the same time number of Linux operating systems are many and selection makes confusion. DistroWatch.com has listed 796 Linux distributions (Bodnar, 2015). A new user should consider the following things in mind for the selection of Linux operating system.



32&64 bit: Computer processor architecture is a prime selection criterion of operating system. New computers are available with 64 bit processors. Computers available around 1990's had 32 bit processors. Processors with 64 bit architecture can handle more calculations per second and can offer good speed in performing tasks (Bourque, 2014). Linux operating system is available for 32 & 64 processors. Consider the architecture of the computer processor before the installation of Linux. 32 bit Linux can also be installed in computers with both architectures; 64 bit Linux operating system can give maximum performance with 64 bit processor. It's possible to revive old computers with 32 bit architecture by installing Linux operating system and can convert it as print server or some other purposes.

Server/Desktop edition: Enterprise applications like digital libraries (e.g. Dspace) and library management systems (e.g. Koha) are recommended for installing in server class computers for utmost performance. Desktop computers are essential for day to day activities (e.g. word processing) of the libraries. Server class and desktop computer operating system features are different. Desktop editions of Linux operating systems are available with many utilities like office suite, audio-video players, Bluetooth etc. These utilities are not required in server edition of Linux. Linux operating system with pretty graphical user interface can be chosen for desktop computers. Windows operating system users show reluctance to sudden switch to Linux. Mint and Ubuntu more or less gives the feeling of Windows operating system and is suitable for new users of Linux.

System administrators expect Linux operating system without graphical user interface or with minimum graphical interface for server computers. Services (e.g. web server, MySQL) with Linux can be managed by executing commands. Graphical interfaces of operating systems are resource hungry. Server computers need more resources to run enterprise applications. Server editions of Linux operating systems are available with or without desktop interface. Server edition of Ubuntu Linux is available without graphical desktop interface. If necessary, users can add graphical interface after installation. Debian Linux is suitable for the installation in both desktop and server computers. Users can make the Debian Linux skinny while installations by leaving the packages for graphical user interface.

Stable versions: Most of the Linux operating systems are Open Source and depend heavily on community effort for development process. Lot of changes in source code adding to the project and it result in frequent improvements. Open Source software versions can generally be classified as stable, current and development. Development versions are subject to (for) frequent changes and are mainly for testing purposes before release. Current version is running edition and is just released. Users can report suggestions for further improvement or report any particular issues. Minor improvements and bugs fixes are added (ing) to the current version as updates. Stable versions of software were released (a while ago) and have attained maturity by receiving large number of updates. Stable versions of Linux operating systems are most recommended for installation in server computers. Linux projects often assign more life span for stable versions and can



be used for many years. Debian (Wise, 2015) and Ubuntu Linux have assigned long life for stable versions and it ensures continuous updates for many years. Ubuntu offers 9 months life for current editions and 5 years for stable editions (Canonical Ltd., 2015).

Desktop GUI: Desktop environment of operating systems give graphical interface for users. Linux operating systems does not own a graphical interface like Microsoft Windows. But a lot of desktop environments are suitable for Linux operating system. Users can accept the desktop environment available with the Linux operating system. After installation, Linux allows to install other environments and can switch between them (Hoffman, 2013). Popular desktop environments of Linux are GNOME, Cinnamon, KDE, Unity, XFCE, LXDE etc. Desktop environments can be classified as heavyweight and lightweight in terms of computer resources consumption. GNOME, Cinnamon, KDE and Unity are graphical intensive, user friendly and little bit resource hungry. These desktop environments are recommended for latest computers with good hardware specifications. XFCE and LXDE are light weight desktop environments and suitable to revive old computers with low hardware specifications.

Package management: Linux operating system follows mainly two different types of applications package management: DEB and RPM - DEB package management systems derived from Debian Linux project and RPM from Red Hat Linux project. Majority of Open Source software installation files are available in both DEB and RPM format. One format is (does) not compatible with other Linux. A user who wants to install GIMP software in Debian Linux using package, has (need) to download gimp.deb file from the software home page. Package of gimp.rpm does not work with Debian Linux. DEB package management system outwits RPM in number of packages available and wide support from Open Source community.

Compatibility with applications: Open source digital libraries, library management systems, content management systems and discovery services software are popular among libraries and information centers. (That software's) Most softwares can run on most of the Linux distributions. But certain applications like Koha prefer Debian Linux for installation. Koha software project maintains DEB package repository and is comparatively easy to install in Debian rather than Red Hat Linux. Dspace can be installed in both Debian and Red Hat Linux. Libraries which are going to install Koha and Dspace in single server computer, need to select Debian/Ubuntu as operating system.

Glitches with Linux

Changes in technology and keep in touch changes always make problems to stakeholders. Advent of Open Source software has changed the nature of software support to end users. Users of Open Source software can seek free community support and commercial support. Libraries have traditionally relied upon their vendor's technical support. In certain contexts it is difficult to get paid support for Open source software from local vendors. Users have to acquire the skill set to



seek free community support. Linux operating system is getting popular among library professionals. Libraries with few staff and hectic workload are not in a position to spend time for learning and self-support. Very few libraries have technical staff for in-house support. Technical staff who (have) lack knowledge/who are reluctant to Open Source software can also make the situation difficult.

In certain cases, total cost of ownership goes beyond the expectations of library authority. Libraries without proper IT infrastructure have to buy computers and related accessories. They need to shell out more money to go for Open Source software implementation with the help of commercial support. Proper home work is necessary before the implementation of Open Source software implementation in libraries. Sudden implementation of Linux operating system will lead to the protest of other staff members. Switching from Windows to Linux is difficult for normal users and they need to be allowed time to get familiar with new operating system.

Linux operating systems connectivity with other hardware components like printers and scanners is a daunting problem. Unfortunately companies have not developed Linux driver for popular models of printers. It creates difficult situation for new users of Linux with existing hardware. Hardware companies have realized the situation and have started to develop Linux drivers for printers and scanners. Websites of Linux Operating systems have listed supported hardware list. Libraries and educational institutions can check the Linux supported hardware from the websites before preparing supply order. Ubuntu Linux website is maintaining an extensive list of various hardware's like server computers, printers and scanners.

Conclusion

Linux operating system is a cost effective solution for library and information centers. Open Source applications running on Linux operating systems are many. Linux myths have emerged due to lack of awareness among users. Linux can be implemented in libraries with the existing IT infrastructure without shelling out money. Linux operating system can run on computers with low and high hardware specifications. Libraries and information centers can give new life to old computers by using Linux operating system. Acquiring skill set is necessary for the successful management of Linux in Libraries. Library professionals can enhance their skill set by joining for training programs organised by Linux user groups and professional organisations. Community support of Linux is free and libraries can seek commercial support if necessary.



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Need for Developing Information Literacy Skills in E-Learning Environment

Laila T. Abraham

Introduction

Information literacy or e-literacy is a concept that has received a progressing awareness among academic community in accessing e-resources available in a learning environment. "Information literacy is the ability to recognize when information is needed and to locate, evaluate and use it effectively." According to Association of College and Research Libraries (ACRL), a division of American Library Association, Information Literacy is a set of skills needed to find, retrieve, analyze and use information. In the present scenario, libraries perform as the centre for facilitating e-learning where ample electronic resources can be accessed for study and learning purposes. Due to information explosion, it has become a problem that students cannot choose to learn what is required for them. It is in this case that Information Literacy can be seen as a solution to equip them with critical skills to become independent lifelong learners. As per UNESCO's website, Information Literacy is the "action to provide people with skills and abilities for critical reception, assessment and use of information and media in their professional and personal lives" (UNESCO, 2010).

According to American Library Association Presidential Committee on Information Literacy's January 10, 1989 report, "Information Literate people are those who have learned how to learn. They know the way to learn because they have learnt how knowledge is organized, how to find information and how to use information in such a way that others can learn from them. They are people ready for lifelong learning, because they can always find the information needed for any task or decision at hand" (ACRL, 2015b).

Important Initiatives towards Information Literacy

Due to the advancement of ICT in educational sector, the scope of e-learning enhanced and there is a trend to add more of electronic resources to the library collection. The concept of information literacy has a long evolutionary background. The term 'Information Literacy' had first appeared in Paul G. Zurkowski's report written for the 'National Commission on Libraries and Information Science' in 1974. The phrase was used to explain the 'techniques and skills' for utilizing information resources and tools for finding solutions to problems. The usage of this phrase has led to the demarcation between information 'literate' and 'illiterate' (Zurkowski, 1974).

In January 10, 1989, a report of the Presidential Committee on Information Literacy came out which highlighted the significance of information literacy which led to the creation of a National Forum on Information Literacy consisting of 90 National and International Organizations (NFIL, 2015)(ACRL, 2015b).



Since 1989, due to the absence of national level standards, many states, school districts, state university systems, and local institutions have developed information literacy competency standards (Bent, 2011).

From 1998-2003, many efforts to bring out nine standards in categories like 'Information literacy', 'Independent learning' and 'social responsibility' were taken by the American Association of School Librarians (AASL) and Association for Educational Communications and Technology (AECT). Also in 1998, the Presidential Committee on Information Committee has brought out six main recommendations for developing Information literacy among the academic circle. In 1999, "The seven pillars of Information Literacy" was published by Society of College, National and University Libraries (SCONUL) in the UK (American Association of School Librarians & Association for Educational Communications and Technology, 2015), (ACRL, 1998), (Bent, 2011).

From 2003- 2009, several initiatives in this direction have been taken by the National Forum on Information Literacy and US Government which led to the development of ICT Digital Literacy Advisory Committee. This was a major step towards making the people understand the role of information literacy in using the relevant information for solving their problems. This helped to develop national consciousness in United States and October 2009 was declared as 'National Information Literacy Awareness Month' by President Mr. Barack Obama (Obama, 2009).

Significance and need of Information literacy

Individual users depend upon information for their personal as well as professional growth and achievements in life. So they try to obtain information by going to any extent and benefit out of it for achieving their objectives in life. But due to the prolific growth of literature in various forms and formats in every discipline, it became difficult to sort out and select the required information. According to David Shenk, information explosion creates 'Data Smog', which means that too much information can create a barrier in our lives. According to him, "data smog is developed when huge amount of information comes from different directions and the speed with which it comes to us, the need to make fast decisions with the feeling that we are making the decisions without referring all the relevant information"(ACRL, 2015a).

Hence to evaluate each of these formats of information, some basic training is required and hence information literacy initiatives have become a global issue. Due to this, a number of information literacy initiatives have been proposed in the last decade all over the world. As a consequence, the need for information literacy programmes has become increasingly important in all disciplines of study.

In a University environment, students undergoing higher education can contribute to the parameters of information literacy programme, if he is e-literacy competent.



Information Literacy and curriculum

To acquire information literacy library skills, Shapiro and Hughes have put forward a “Prototype Curriculum” that covers the different types of literacy criteria in relation to the academic resources available in the library. For that seven important literacy components have been suggested namely: (Shapiro & Hughes, 1996)

- **Tool literacy:** Indicates the ability to understand and use the current Information technology tools to search and retrieve relevant academic information.
- **Resource literacy:** Indicates the ability to understand the layout, location and methods to access information print as well as e- resources form.
- **Social-structural literacy:** Indicates the ability to understand how information is socially situated and generated.
- **Research literacy:** Indicates the ability to understand and use the IT-based tools required to retrieve the information related to the topic of study of the researcher.
- **Publishing literacy:** Indicates the ability to format and electronically publish ideas and research findings of researcher to enable communication among research scholars.
- **Emerging technology literacy:** Indicates the ability to adopt the emerging innovative technologies and make evaluations in this regard and to take decision about accepting the new ones.
- **Critical literacy:** Indicates the ability to critically evaluate various aspects like intellectual, human and social power and weakness, advantages & disadvantages and cost- benefit analysis of emerging information technologies.

Information Literacy and academic community

Technology is changing rapidly and information is now available in multiple varieties of forms, languages and media. This has created the need to evaluate the authenticity and reliability of information. In a University set up, for acquiring constant and effective information literacy skills there should be partnership interaction between students, librarians and teachers of the university. Also steps should be taken to integrate information literacy skills along with academic curricula (Jarson, 2010).

Enabling access to a huge volume of information in different languages, forms and media will not in any way produce information literates. Only if the resources are effectively utilized using appropriate tools, a student or teacher can become information literate. When a library user attains literacy skills, he/she will be able to:



- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

Changing role of Library Professionals

The fast moving information scenario demands library professionals to evolve practices and get adapted to it as per the needs of the user community. The methods and practices must facilitate and increase the potential of students to harness the power of information. The ability to evaluate information, to assess its relevance, authenticity and current status are the key factors to harness the power of information. Due to this, the process of evaluation becomes the basic for library professionals to develop skills for acquiring information literacy (Fitzgerald, 1999).

Academic librarians as literacy instructors

In a University Library environment, students are provided with necessary orientation and user awareness programmes for making them familiar with the resources subscribed in the library. At the beginning of every academic year, library orientation is given to Post Graduate, M.Phil students and Research scholars regarding the use of online services and resources available in the library. Instructions for developing literacy skills in higher education sector can be done in many ways like stand-alone courses or classes, online tutorials, workbooks, course related instruction, or course-integrated instruction. In all the above instruction methods, university libraries can support the students and teach them to a large extent, the concepts of information literacy and help to develop e-literacy skills in order to utilize the information available in their environment effectively.

When Professional librarians take up the role of educators, the motive should be to remove all the obstacles that prevent creativity which are developed due to the lack of proper understanding of the resources and the methods to utilize them. This will help students to get acquainted with skills which will enable them to succeed in life.

E-Resources and Online Services

Most of the Indian Universities are spending several crores of rupees for procuring electronic resources in the libraries and for providing infrastructural facilities to utilize them. Students of all levels like PG, M.Phil, Research Scholars and faculty are the core members of any academic library. In many university libraries, graduate members are also given the privilege to become members. E-Books, E-Journals, Online Databases belonging to varieties of subjects and



publishers, UGC-INFONET consortium service available in the library are provided for use to all categories of members. Different publishers follow different search pattern for utilizing their resources. In an e-learning environment, librarians should give necessary publicity regarding the availability of resources and URLs or links to these resources need to be displayed. This will help the users to become aware of the different resources in the library and their respective address links. For promoting the utility of E-books, there are E-book readers available, for downloading the required titles and reading them at the convenience of the users. As professional librarians it is their duty to help the users to develop skills to use these e- resources effectively.

E-Literacy and Wifi facility

Due to the technological advancement and the aptitude of students towards electronic media, most of the University Libraries are now concentrating on the purchase of more number of electronic resources in the library. As academic librarians, care should be taken in that the resources of the library should meet the needs of higher education system. Along with the development of e-literacy skills, there should be facilities for students to access the resources of the library from any location suitable to the user. In Universities where campus wide network is enabled, students can freely use the library resources from any corner of the campus. In Libraries where Wifi facility is provided, students can use their Laptops sitting inside or outside the library building for accessing the resources of the library.

The challenge in such e-learning environments, is that how the resources are being used? Are the students able to fully exploit the resources of the library? These are some of the unreciprocated issues still remaining to be solved by the library community. This is one of the situations where the development of e-literacy skills has an important role. For finding a solution to these kinds of challenges, necessary training regarding the search and retrieval mechanism of library resources subscribed by the library have to be provided to students as per their requirement, either on single or group basis.

In E-learning as well as distance education environments, the challenges for developing information literacy skills can be overcome by providing effective information literacy development programmes. In University department libraries, librarians can utilize Course Management Systems like WebCT and Blackboard as a support to help the students in developing skills for using the information resources effectively.

User education for improving information literacy

Personal Interviews were conducted among ten students studying various courses and levels in the University for the purpose. Based on the discussions, it is suggested to provide frequent user education programmes to the students. This will help them to improve their skill in searching, retrieving and applying the information in the appropriate situations critically and effectively. As Professional librarians it would be better if they work in coordination with curricula in order to help, find,



evaluate and utilize the available learning resources. Some of the goals for providing user education are:

- To improve their ability to identify their information needs
- To improve their ability to recognize key concepts for information searching
- To improve their strategy for searching information
- To improve their ability for applying the information received in their study areas
- To help them to systematically approach the learning skills
- To promote creative thinking
- To effectively use all types of resources
- To become perfect citizens in the society

Conclusion

Major changes are occurring in the learning environments day by day. Accordingly the academic community are to be prepared for acquiring new skills for handling wide variety of resources available to them. The most important thing to remember is that to achieve the literacy skills a well-established library system is required. In a University Library set up, Professional Librarians are the information managers as well as information providers. To utilize the information, the students, faculty and research scholars should develop information literacy skills. To provide and manage information, librarians should also acquire these skills. Hence Information literacy is not for students alone. It is meant for all of us, especially professional librarians who are handling information in the workplace and in personal lives. By becoming information literate, it helps us to take wise decisions in our day to day life and thereby helps to improve the quality of our life. To become a perfect citizen one should develop literacy in information. Based on the discussions conducted with students, it is suggested that to improve information literacy skills, user education has to be provided. It is also recommended that a triangular relationship among teacher, librarian and students should be maintained for establishing a healthy e-learning environment in Universities.



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Personal Learning Network: A powerful Tool for Professional Development

S. L. Faisal

Introduction

“No man is an island...” as John Donne (1624) said in his poem with the same title, a professional cannot thrive reclusive in today’s hyper connected world of virtual spaces. The case is not different for librarians though they rule the domain with specialized knowledge and skills to handle multi formatted pieces of information with umpteen gadgets. Technology makes people more closely intertwined through conversations, collaborations and resource sharing. Many people think that the exchange of *Tweets, Likes, Comments and Status updates* shall be treated as evidences to show that the person exists and can be reached in real time. So, being ‘*connected*’ or ‘*networked*’ for one’s own personal or professional development is now not a fancy phrase but the need of the hour. Personal (or professional) Learning Networks (PLN) were developed and maintained in many organizations as a part of their strategy to equip the employees with up-to-date knowledge cropped up in the field of interest. These PLNs may be of a group of persons or professionals with low or high level expertise in the field who are linked together through physical communications, interactions and organized gatherings. There is a flow of information or intelligence inside the network and the benefit goes to each member. The trend has gained momentum in the second half of the last decade with the emergence of social media as the main ecosystem where it becomes possible to connect the least knowledgeable individual with the most intelligent of the lot. How a library professional could gain from this influx of access points heaped up around him? Why it is crucial to develop one’s Online Personal Learning Network as part of his/her lifelong independent learning to keep up with the instant changes happens in the field? This paper seeks to address these questions by studying the working PLN model developed by the author.

Objectives of the study

The prime objectives of the study are,

- To understand the theoretical setting, evolution, features and components of an online Personal Learning Network (PLN).
- To study how a Personal Learning Network can act as a powerful tool for professional development.



Defining a Personal Learning Network

Will Richardson (2011) defines Personal Learning Networks (PLNs) as the collection of people with whom one engage and exchange information. They are the group of people who contribute to one's knowledge and understanding of topics in his/her field and beyond. A PLN is an informal learning network of people you connect with for the specific purpose of learning, based on reciprocity and a level of trust that each party is actively seeking value added information for the other (Digenti, 1999; Tobin, 1998). Torry Trust defines PLN as "a system of interpersonal connections and resources that support informal learning" (Trust, 2012). The simplest definition of a PLN "is a group of people with whom one connects, communicates and collaborates in the sharing and exchanging of information and ideas, and through whom one increases one's knowledge and understanding of topics of interest" (Novak, n. d.). Personal learning networks are created by an individual learner, specific to the learner's needs extending relevant learning connections to like-interested people around the globe (Nielsen, 2008). In the PLN environment variety and depth of contacts decides the scope of the network. These contacts are easily built and maintained with the help of new online technology tools, especially web 2.0 applications.

PLN as part of Personal Learning Environment (PLE)

A PLN is considered broadly as a part of the wider Personal Learning Environment (PLE). Martindale & Dowdy (2010) describe a PLE as a "manifestation of a learner's informal learning processes via the Web". They are personal to each individual, created by them, owned by them, used by them within their lifelong learning (Wheeler, 2010). In a technology enhanced learning system, PLE is a counterpart to the institutional Managed Learning Network (iMLN), where the learners' PLNs are controlled or restricted by the organizational learning network of the institution.

PLNs are functioned under the wider ambit of a PLE. Steve Wheeler (2010) represented the concept as shown in the figure 1. Apart from the formal and general learning carried through real life experiences, audio visual media, printed materials, a PLE consists of a PLN, where 'connection' is the prime factor and a set of Personal Web Tools (PWT), which may be any tool, mostly web 2.0 in character.

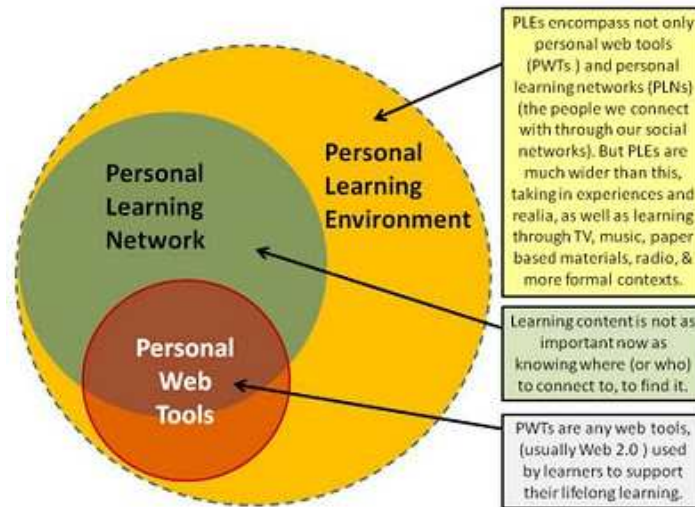


Fig. 1 Personal Learning Environment

Wheeler also depicted as in the figure 2, the inclusion of Cloud Learning Environment (CLE) in to the PLE as a conceptual bridge between institutional Content Management Systems and personal web tools.

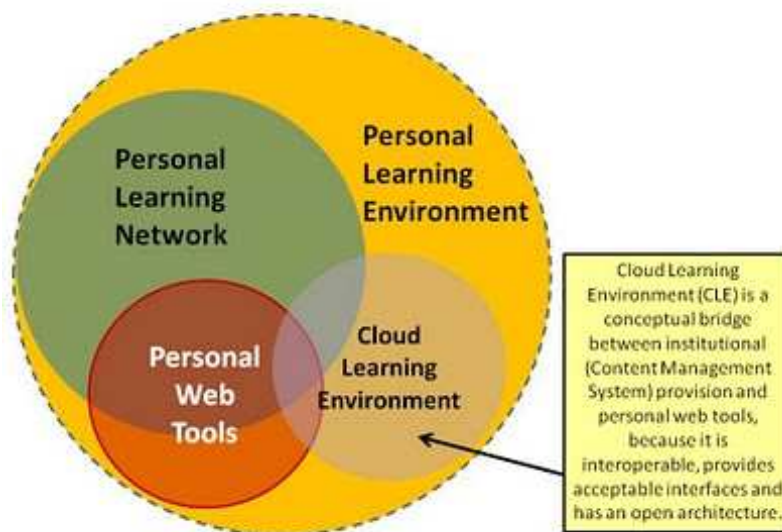


Fig. 2 Personal Learning Environment with CLE



Chronological Evolution of Personal Learning Networks

The evolution of PLNs as highly robust systems for continuous personal and most often professional learning and development is based on the theories of social learning and connectivism developed by George Siemens and Stephen Downes. They pointed out that “including *technology* and *connection making* as learning activities begins to move learning theories into a digital age. We can no longer personally experience and acquire learning that we need to act. We derive our competence from forming connections” (Siemens & Downes, 2005).

The evolution of personal learning systems or networks can be explained by dividing it chronologically into three. The PLNs existed before and after the advent of World Wide Web (www) and that evolved with the emergence of new media, particularly web 2.0 technologies. A comparison is given in the Table 1.

Table 1
Chronological Evolution of Personal Learning Networks

Network Features	Before the World Wide Web	After the World Wide Web	With Web 2.0
<i>Environment</i>	Physical, hierarchical, individualistic	Digital, sharable	Technology mediated, open, interactive, collaborative, social
<i>Components</i>	Experts, Colleagues, Resources, Learner	Internet, Experts, Developer, Resources and Learner	Social media connections/contacts and Learner (creator)
<i>Resources</i>	Print, recorded and readable (limited formats)	Digital, pre created/ developed	Digital, crowd sourced, multi format
<i>Channel</i>	Face-to- face or wired communication	Digital, wired/ wireless	Digital, wireless
<i>Flow of information</i>	One way, partially two-way	Two-way	Multi-way
<i>Response Speed</i>	Fixed, slow	Fast, limited	Instant and real-time
<i>Access points</i>	Personal conversations, Media, conferences	Websites, E-mail, List serves	Social Networks, Blogs, Wikis, etc (all web 2.0 tools)
<i>Area</i>	Local, limited	Wide, sometimes restricted	Local/Global (as decided by learner)
<i>Learning style</i>	Structured, pre designed	Planned, Distance mode	Self-directed, flexible
<i>Learner-Collaborator Relationship</i>	Personally known to both, formal	Known or connected	Not necessary to know each other, informal



Basic differences of PLNs with other learning systems

The nature, components and functioning of a PLN depends entirely on the 'person' around whom the network developed. The personal priorities and individual traits affect the designing of the network. According to Bev Novak (n. d.) the key differences between PLNs and other traditional learning systems are,

- *Learn anything:* PLN allows one to learn anything of his/her choice irrespective of the subject and need, where the traditional learning systems insist on specialization.
- *Learn anytime:* The PLN connections made via social networking platforms allow the learners to meet each other at any time as per his/her convenience, whereas the traditional system follows fixed time schedules.
- *Learn anywhere:* Regardless of the location of the learner, a PLN supports freedom to exchange knowledge globally, whereas other learning systems provide restricted and controlled access.
- *Learn with anybody:* On a PLN, everyone is able to interact, exchange ideas or expertise with anybody in the world. Social networks facilitate connecting likeminded people and build strong personal or professional bonds. This feature is lacking in other learning systems where professional hierarchies are kept intact.

Library professionals and professional development

Librarians as professionals need to go under continuous professional development activities. Bailey (2007) broadly stated that the library professionals require learning to: "Review the educational, informational and technological environments. ...

"Revise how we view and perform our work based on patron needs: point, level, time, place, format, speed-of -response, etc., move outside limits which history and habit have imposed on us and meet our patrons where they are, as they change and innovate over time.

"Reform the structures of our knowledge, skills and abilities, our preferences, habits and methods of comfort, becoming flexible and adaptable to thrive in the culture of change and innovation.

"Refresh our attitudes and preferences, our understanding of patron needs, our knowledge, skills and abilities, much as academics have done through the years with sabbatical leaves; but we must do this habitually.

"Transform ourselves several times in our careers, to remain current, vibrant and vital. ..."

So, why the library professionals should utilize personal learning networks to arm themselves with the power of informal learning, backed by technology?



PLNs for Library professionals

The hapless state of formal learning for a working library professional asks severe questions to answer. Lack of in-house training programmes affects the competencies of the professionals clearly. High cost of formal training and professional development courses coupled with the non-availability of trainers or resource persons with expertise in the specified field make the situation worse.

Siemens (2005) suggests “given the speed of change and the impact of technology on our lives and workplaces, learning is changing. Informal learning is a significant aspect of our learning experience. Formal education no longer comprises the majority of our learning. Learning now occurs in a variety of ways – through communities of practice, personal networks, and through completion of work – related tasks.”

The constant technological changes occur in the field demand a more lively and informal professional learning system. Setting up a personal learning network emerges as a fitting solution for the desperate professional where he/she can learn anything, anywhere, with anybody at his/her pace and literally free of cost.

Developing a PLN: A personal experience

At a more basic level, a Personal Learning Network is simply the conceptualization of the web of connections to other people and information that an individual creates to satisfy his/her own information/learning needs (Lisa, n. d.). This also includes the existing traditional learning resources one accessed through print and via real life interactions. So, building a PLN basically means making useful connections. And to be connected in the web 2.0 era is not a hard thing to attain. In the following sections, a PLN created by the author is examined to understand how it contributes for his professional development.

Components of the PLN

The basic components of the PLN under study are broadly divided into two, (i) non-web based (traditional) and (ii) web-based.

Non-web based (traditional) components

The real life experiences and physical interaction or consultation with people, groups, resources, institutions and media through which the author gain continuous professional knowledge are the components classified under this category.

In detail, they are,

- *Real-life experiences at the workplace*
- *People and Groups*
- Professional colleagues, teachers, mentors (face-to-face)
- Professional Associations



- Conferences, seminars, workshops, in-house training programmes
- *Resources (print & digital)*
 - Professional journals
 - Books
 - Monographs, reports
 - Conference Proceedings
 - Catalogues, Digital libraries, Databases
 - Institutional repositories, e-journal consortiums
 - Library Networks
- *Institutions*
 - Libraries and information centres and LIS Departments/Schools
 - Parent organization
 - Government & Non-Governmental organizations (cultural, charity, voluntary)
- *Media*
 - Print (newspapers, magazines, etc.)
 - Audio-visual (radio, television, film, etc.)

These time-tested traditional components are located in the wider Personal Learning Environment (PLE), where the PLN under study is incorporated.

Web-based components

The evaluated PLN exploited the dynamic features of web 2.0 technologies to access a global professional knowledge pool of experts, networks and resources. The components and some of the access points used on the PLN are detailed below.

E-mail: One of the most important components of the PLN under study is e-mail.

The email became the primary communication medium of the internet age through which messages and documents are being shared. The email accounts with Gmail, Yahoo, Hotmail and Rediff serve the purpose.

Social Networks: The author joined and created some online professional and general social networks, where he could interact with professionals. These networks include,



➤ *Nings*

- IASL Meeting Place (<http://iaslonline.ning.com>),
- Teacher Librarians Ning (<http://teacherlibrarian.ning.com>)
- Library 2.0 (www.library20.com/)
- LIS Links (<http://www.lislinks.com/>)

➤ *LinkedIn Groups*

Web Junction, Internet Librarian International, CILIP, IFLA, AASL, Digital Libraries, SLA, Web Junction, Library 2.0

- *KV Librarians' Network*: Created by the author (<http://kvlibrarians.grou.ps>), with more than 550 professional librarians as members. This network helps to communicate, discuss, collaborate and share issue and ideas among the professionals working in the same field.
- *Library Junction*: An online academic social network which connects librarians, teachers and students, created by the author (<http://www.libraryjunction.net>)
- General Social Networks
- *Facebook (with more than 2300 Friends), Google +*
- *Face book Pages*: Following ALA, ASLA, SLA, Indian Library Association, Kerala Library Association and administering the Facebook pages of the library (more than 1730 'likes') and parent organization (more than 3450 'likes').
- *Facebook communities*: LIS Professionals, New Generation Librarians, Library E-Resource Management, E-Librarian, Library & Information Science Group, School Librarian, etc.
- *Youtube Channels*: TEDx Talks, Carnegie Mellon, BBC Worldwide, Education channels
- *Accounts with Pintrest, Flickr, Slideshare*
- *Social Bookmarking sites*: Stumbledupon, delicious
- *Cloud sharing platforms*: SkyDrive, Google Drive
- *Content curation networks*: Scoop it.
- *Academic Scholarly Networks*: Google Scholar, Academia.edu



Blogs

A blog is a website, maintained by one or several people, with regular entries of commentary, descriptions of events, or other material such as graphics or video and those are displayed in reverse-chronological order. The 'biblioblogosphere' consists of a number of regularly updated library and librarian blogs. These blogs provide updates on the latest happenings and insights into the technological and theoretical changes that occur in the domain.

Examples:

<http://www.librarian.net/http://mediaspecialistsguide.blogspot.com/>,
<http://www.thedaringlibrarian.com/> , <http://theunquietlibrarian.wordpress.com/>
<http://librarianbyday.net/http://librarianinblack.net>,
<http://theshiftedlibrarian.com/>,

Apart from this, the author has a personal blog, <http://sifaisal.wordpress.com> and created a number of blogs for his library including, <http://librarykvpattom.wordpress.com>, <http://homeworksonline.worpress.com>, <http://mydearbook.wordpress.com>, <http://facebook.info>, <http://librarynext.org>, and <http://librarycloud.wordpress.com>. The library blog has been followed by more than 5000 people online.

The micro-blogging interface, the twitter account of the library has 342 followers.

Library/librarian websites

Regular visit to some informative websites created for and by library professionals, technologists and educators helps the author to keep himself updated with the latest changes in the field. Examples include, <http://mashable.com/social-media/>, <http://readwrite.com/>, <http://lii.org>, <http://acrl.ala.org/techconnect/>, websites of ALA, CILIP, SLA, etc. Subscription to RSS feeds of the websites is a good source of current information.

E-mail Groups/Forums and Alerts

Email groups and web forums are the most dynamically updated online communication platforms through which a member or subscriber could keep informed about the most newest happenings in the intended field. The author is a member of many such online forums those keep him updated on professional matters. These include IASL-LINK, LIS-Forum, NMLIS, SALIS_INFO and some other Google and Yahoo Groups.

The PLN under study consists of the 'Google Alerts service' provided by Google, which brings daily updates (email alerts) of links to the webpages having pre-selected keywords.



Mobile technologies and tools

Mobile applications which keep connected the author with other professionals serve as an important component of the Personal Learning Network. Besides the voice calls, these include Short Messaging Service (SMS), applications to access online social networks like Facebook, Google+ and Twitter, messenger applications like WhatsApp, Viber, Skype and WeChat.

Benefits of the Personal Learning Networks

The overall and positive impact of a PLN on the professional development of a library and information professional, or any professional is very much significant in the present, over connected environment. Following are the major benefits earned by a professional through a PLN.

- Provides access to global professional learning communities and expertise.
- Creates a space for collaborative learning and resource sharing.
- Aids real-time or quick doubt clearance on professional issues.
- Enables brainstorming and fine-tuning of ideas.
- Keeps the professional up-to date and live.
- Facilitates self-directed and informed learning.
- Supports informal learning in an in expensive manner.

The above discussion shows the role and importance of PLNs in a professional's continuous and comprehensive knowledge and skill development. It also proves the relevance of creating own PLNs by each and every library professional, who needs to be well informed.

Conclusion

A Personal Learning Network (PLN) is an informal learning network of people a person connects with for a specific purpose of learning. These are a group of people or resources one connects, collaborate, communicate and share information and ideas, which eventually increase one's knowledge bases. A PLN is a part of the wider Personal Learning Environment (PLE). The evolution of PLNs into the present form can be chronologically divided into three, the PLNs before World Wide Web, after World Wide Web and with the emergence of web 2.0. Learning anything, anytime, anywhere, and with anybody are the key features which differentiate a PLN from a traditional learning system. The continuous learning needs of a library professional could not be satisfied only with traditional methods but greatly supported by informal learning systems like PLNs. The basic components of a PLN can be broadly divided into two, (i) non-web based (traditional) and (ii) web-based. The application of social media and other web 2.0 tools immensely help professionals to create their own PLNs. The integration of PLNs in one's professional development strategy by creating connections with learned people in



an informal way will significantly improve his/her professional knowledge, skills and competencies. Today's networked world demands professional development through communication, collaboration, sharing and co-creation. A Personal Learning Network is a powerful tool to achieve this.

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Psychology Journals in DOAJ: A Scientometric Study

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Introduction

The tremendous growth taking place in Information Communication Technologies in 21st Century have lessened the Physical boundaries of the world and brought out many revolutionary changes, especially in scientific publishing. Online publications have got unimaginable demand and many conventional print publications, especially journals, cease to exist. Publishers have now turned to digital publishing of their resources and made it open access through the assistance of ICT. The blend of an old tradition, ie, the willingness of scientists and scholars to publish the fruit of their research, and the new technology, ie, the advent of Internet and digital libraries, made it possible to have worldwide electronic distribution of information, completely free to avail. This free, immediate, permanent, online access of the full text of research article, books, database etc from any part of the world is known as Open Access.

Open access means unrestricted online access to peer-reviewed scholarly research. It is primarily intended for scholarly journals. Association of Research Libraries (ARL, 2004) defines Open Access as any dissemination model created with no expectation of direct monetary return and which makes works available online at no cost to the readers. Peter Suber (2003) an important and well renowned author of Open Access movement and the Director of Harvard Open Access Project, defines Open Access (OA) as the digital, free, online availability of scholarly literature. OA signifies the democratization of knowledge and supports socially responsible way to distribute knowledge. Open Access makes the same knowledge and Information available to scholars in wealthy, first world nations, in developing nations and in under-developed third world nations (Ylotis, 2005).

Initially, a strong resentment was seen from the publishing industry, that open scholarship was a great threat to their business venture. But, in course of time, leading publishers also joined the Open Access Movement due to the innumerable potentialities that are adhered to it. Scholarly and scientific journals are now enjoying flavors of Open Access and growing at an escalating rate day by day. Directory of Open Access Journal (DOAJ) covers presently 10037 journals in various languages which covered only five journals offering Open Access mode to their content in 1992 and 1200 journals in 2004 (Falk, 2004).

DOAJ (Directory of Open Access Journals), which is a strong blessing for scholars and researchers and also for everyone involved with the Information Communication process, provides access to quality controlled open access journals



and lakhs of articles in every sphere of knowledge. The directory aims to increase the visibility and ease of use of open access scientific and scholarly journals, thereby promoting their increased usage and impact.

Day by day, open access movement is gaining its momentum and every subject has been positively affected by it. The present age witnesses many a scholar involved in research in various fields of Psychology. The present study aims to evaluate the number of Psychology journals published in the Directory of Open Access journals (DOAJ) from 2003 to 2014. It will really benefit the scholars engaged in the research fields of Psychology and financially down libraries and institutions that have a dwindling budget for journals, by accessing the open access journals.

Relevance of the Study

Numerous research scholars are engaged in various fields of Psychology to find out solutions for the problems and stress confronted by the humanity and the nature and characteristics of various groups of people in the contemporary period. Scholars require large amount of literature and information to base their study and research. So the present study can help the librarians and research scholars,

- to select the most useful Open Access journals in the area of Psychology in DOAJ
- to bring awareness in using the authentic journals of Psychology available for free access over the web.
- to enhance the academic library services by the libraries to serve the library needs of the users.
- to solve to a great extent, the problem of dwindling library budget for online journals.

Objectives of the study

In order to pursue the study, the following objectives are framed in accordance with the scope of investigation.

- To examine the number of digital journals available in the field of Psychology in DOAJ.
- To identify the country that contributes more open access journals in DOAJ in the area of Psychology.
- To assess the language wise contribution of Psychology journals in DOAJ.
- To examine whether it incurs any charge in publishing the Psychology journals in DOAJ
- To determine the year-wise distribution of Psychology journals in DOAJ



Scope and limitation of the study

The present study is proposed to confine to only the Psychology journals available in the Directory of Open Access Journals (DOAJ) that are published until 2014 November.

Methodology

The present study is an attempt to find out the Open Access journals in the field of Psychology in DOAJ. The data has been collected from the DOAJ website, ie. www.doaj.org. All the journals published in the field of Psychology are closely examined. The collected data were classified and tabulated using SPSS according to the objectives by using the statistical tools such as percentage analysis and ranking analysis.

Directory of Open Access Journal (DOAJ)

The Directory of Open Access Journals (DOAJ) is a service that indexes and provides access to quality, peer-reviewed open access research journals, periodicals and their articles' metadata. The directory covers almost all open access scientific and scholarly journals that use an 'appropriate quality control' system and is not limited to any particular language, subject, size or country of origin. Lars Bjornshauge, the former Director of libraries at Lund University and a strong advocate of open access movement, founded the DOAJ in 2003. DOAJ is hosted, monitored and partly funded by Lund University library, Head office, Sweden.

The homepage of the directory provides an overview of the resources available in DOAJ. It provides a search option into the resources at article and journal level. DOAJ is currently used primarily by libraries and serials support services and connecting people with open access information through link resolving services. Apart from that, the directory provides beautiful and clear lay out that makes DOAJ so easy to understand and use.

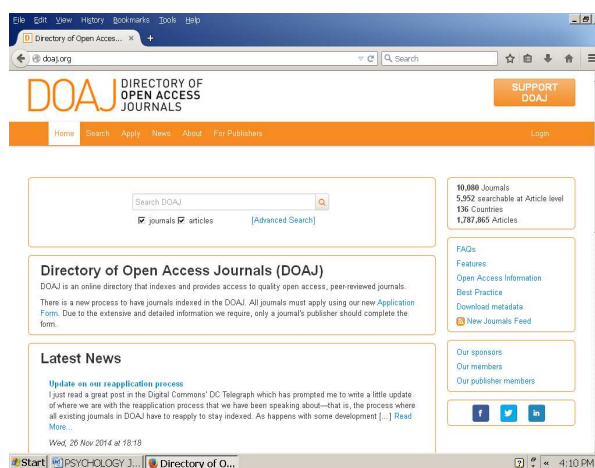


Fig.1 Home page of DOAJ



Subject Disciplines covered in DOAJ

The Directory of Open Access Journals (DOAJ) covers 9985 (as on 30th Nov. 2014) open access digital journals in 10 major subject disciplines in toto. Following table depicts the discipline wise number of e-journals added in DOAJ.

Table 6.1 Subject Disciplines covered in DOAJ

SI.No.	Subject Discipline	No. of E-Journals	Percentage
1	Medicine	2273	22.76
2	Science	1869	18.71
3	Social Science	1151	11.52
4	Technology	834	8.35
5	Internal Medicine	778	7.79
6	Language and Literature	654	6.54
7	Education	648	6.48
8	Medicine (General)	631	6.31
9	Mathematics	601	6.01
10	General works	546	5.46
	Total	9985	100

It is evident from the table 6.1 that a great majority of the journals (22.76%) covered in DOAJ belongs to the subject discipline of Medicine. Journals published in Science field has 1869 in number next to the Medicine. Subject discipline of Mathematics (601) and General works (546) have the least number of journals added in DOAJ.

Psychology Journals in DOAJ

Psychology is an academic and applied science that involves the scientific study of mental functions and behaviors. It has the immediate goal of understanding individuals and groups by both establishing general principles and researching specific cases and by many accounts it ultimately aims to benefit society. Many research scholars are engaged in various fields of Psychology to study individual and group and their social phenomena etc. Different from other subjects, Psychology is a more interesting field of study and research. Now, an increasing number of open access journals are available for the immediate and easy use of scholars without any cost in this field.



Contribution of Psychology journals in Social Science in DOAJ

Table 7.1 Psychology journals in Social Science

Sl.No.	Subject Disciplines	No. of E-Journals	Percentage
1	Anthropology	113	5.52
2	Education	648	31.68
3	Ethnology	32	1.56
4	Library and Information Science	149	7.28
5	Media and Communication	134	6.55
6	Psychology	199	9.73
7	Social Sciences	337	16.47
8	Sociology	394	19.26
9	Sports Science	39	1.91
	Total	2045	100

The above table shows the number of journals that are published under Social Sciences in DOAJ. The total number of Social Science journals reach 2045. Among Social Sciences journals, education ranks first (648) next to Sociology (394). Psychology shares 199 journals in social sciences). Journals published in Ethnology counts only 32 among Social Science which is the lowest.

Year-wise addition of Psychology Journals in DOAJ

Table 7.2 Year-wise addition of Psychology Journals

Sl.No.	Year	No. of E-Journals	Percentages
1	2003	7	3.51
2	2004	7	3.51
3	2005	18	9.04
4	2006	8	4.02
5	2007	11	5.53
6	2008	19	9.55
7	2009	14	7.03
8	2010	27	13.57
9	2011	18	9.04
10	2012	22	11.06
11	2013	41	20.60
12	2014	7	3.51
	Total	199	100



The above table describes the year wise addition of Psychology journals in the Directory of open access journals (DOAJ). The year 2013 has the highest number of journals (41) published, followed to this 27 journals in 2010, 22 journals in 2012, 19 journals in 2008, 18 journals each in 2011 and 2005, 14 journals in 2009 and 11 journals in 2007 and 8 journals in 2006. The lowest number of Psychology journals (7 each) added to DOAJ was in 2003, 2004 and 2014.

Language - wise distribution of Psychology journals in DOAJ

Table 7. 3 Language –wise distribution of Psychology journals

Sl.No.	Languages	No. of E-Journals	Percentages
1	English	64	32.16
2	Russian	8	4.02
3	Chinese	1	0.51
4	Portuguese	8	4.02
5	Spanish	36	18.09
6	Hakeem	2	1.01
7	Romanian	1	0.51
8	German	2	1.01
9	Polish	3	1.50
10	Indonesian	1	0.51
11	Farsi	3	1.50
12	In two languages	52	26.13
13	In three languages	12	6.03
14	In four languages	6	3.01
15	Norwegian	1	0.51
	Total	199	100

From the table 7.3 it is evident that a great majority (64) of journals are published in English language while 52 journals are published in two languages. Spanish language has got 32 Psychology journals added to DOAJ. It is also clear that 12 journals are published in 3 languages, 8 journals each in Russian and Portuguese languages and 6 journals are published in four languages.



Country - wise distribution of Psychology journals in DOAJ

Table 7.4 Country – wise distribution of Psychology Journals

Sl.No.	Countries	No. of E-Journals	Percentages
1	Switzerland	2	1.01
2	Russia	9	4.52
3	Croatia	1	0.51
4	United States	24	12.06
5	Romania	2	1.01
6	United kingdom	7	3.51
7	Portugal	1	0.51
8	Spain	25	12.56
9	Germany	11	5.52
10	Indonesia	4	2.01
11	South Africa	2	1.01
12	Costa Rica	3	1.51
13	Comrade	5	2.51
14	Italy	8	4.02
15	Poland	4	2.01
16	Colombia	17	8.54
17	Peru	3	1.51
18	Austria	1	0.51
19	Uruguay	1	0.51
20	Brazil	25	12.56
21	Japan	2	1.01
22	Iran	4	2.01
23	Argentina	4	2.01
24	Australia	3	1.51
25	Czech Republic	2	1.01
26	Guatemala	1	0.51
27	New Zealand	1	3.01
28	Chile	6	1.01
29	Denmark	2	0.51
30	Puerto Rico	1	3.01
31	Mexico	6	0.51
32	Serbia	1	1.01
33	Egypt	2	0.51
34	Lithuania	1	0.51
35	Thailand	1	0.51
36	France	1	1.01
37	India	2	0.51
38	Georgia	1	0.51
39	Belgium	1	0.51
40	Turkey	1	0.51
41	Norway	1	0.51
	Total	199	100



Table 7.4 clearly indicates the country wise distribution of Psychology journals in DOAJ. 199 journals are identified in to from 41 countries in DOAJ. It is clear that Spain and Brazil have contributed majority of journals (25 each) to DOAJ followed by United States (24journals). 17 journals are contributed from Colombia, while Germany adds 11 journals to DOAJ.

Top five countries standing towards rank in contributing Psychology journals

Table 7.5 Top five countries standing towards rank in contributing Psychology journals

Sl.No.	countries	No. of E-Journals	Percentages
1	Brazil	25	24.51
2	Spain	25	24.51
3	United States	24	23.52
4	Colombia	17	16.66
5	Germany	11	10.78
	Total	102	100

Table 7.5 shows the top five ranking countries in contributing the Psychology journals to DOAJ. From the table, it is evident that the highest number of open access journals are from Brazil and Spain with the total number of 25 journal publications each. United States stand second with 24 journals, Colombia stands third with 17 open access journals. Germany has got fourth position with 11 open access journals.

Cost – wise distribution of publication charges in DOAJ

Table 7.6 Cost – wise distribution of publication charges in DOAJ

Sl.No.	Publication Charge	No. of E-Journals	Percentages
1	YES	30	15.07
2	NO	169	84.93
	Total	199	100%



From the table 7.6 it is clear that a very great majority of (169) e-journals have no charge in publishing or adding in DOAJ while 30 journals cost for publishing in DOAJ.

Findings and suggestions

- The present study has formulated the following findings from the data collected and analyzed.
- From the study, it is clear that Brazil and Spain share first rank in publishing open access Psychology journals in DOAJ. They take first position by publishing 25 journals each.
- English is the most commonly used medium of the open access journals in Psychology by publishing 64 journals.
- It can't be neglected that 52 journals are published in two languages.
- It is very funny to see that 7 journals each are added to DOAJ from the starting year (2003) and the ending year (2014) which is taken for the study.
- It is clear that a great majority of open access journals are added to DOAJ in the year 2013.
- Psychology ranks 5th place among other Social Science disciplines in publishing open access journals to DOAJ.
- It can also be deduced from the data that the American Continent is more generous in publishing open access journals in Psychology compared to other countries. It reveals that more research in the area of Psychology is going on in this Continent.
- A very great majority of open access journals in Psychology have no charge in publishing in the DOAJ.

Conclusion

Open Access has come up with a promising future of making the scholarly content free of cost available to everyone. It has widened the information exchange market and is becoming a world wide effort to provide free online access to scientific and scholarly research literature in diverse formats including open access journals. DOAJ is providing the highest number of open access journals to the user community free of cost compared to other open access directories. It has become a very significant resource that developed reputation for quality, authority, open access and peer-review .Year by year more and more journals are added to DOAJ in various disciplines and ready for online, free access. People belong to the area of Psychology, for research and study will be greatly benefited by the abundant online, free resources available in DOAJ, irrespective of any language.



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