

Electronic Librarianship

Issues and Trends

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SSDN Publishers & Distributors
New Delhi

Preface

Published by
Satparkash Katla
SSDN PUBLISHERS & DISTRIBUTORS
5A, Sahni Mansion, Ansari Road
Daryaganj, New Delhi 110002 (India)
Ph: 011-47520102
E-mail: ssdn.katla@gmail.com, ssdnbooks@gmail.com
www.ssdnbooks.com

Electronic Librarianship: Issues and Trends

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*Papers presented in ICSSR National Seminar held at Orissa University of
Agriculture & Technology, Bhubaneswar.*

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First edition: 2013

ISBN No 978-93-8117-666-5

PRINTED IN INDIA

Printed at: New Delhi

The widespread use of information and communication technology has revolutionized the society. The application of such technologies has brought dynamic changes in structure and functioning of libraries. The most dynamic benefits that the libraries experienced are the ease of use through computer based system and services. Library automation has become a necessity and most of the libraries have become automated. The advent of Internet has generated proliferation of web based resources for which a perceptible transformation is found in library sector. The resultant phenomenon is the development of a worldwide networking system linking to libraries in a global sphere. The arrival of digital technology has made it possible to convert the conceptual information in digital format in library and information centres. One can have access to seamless information from anywhere at any thing crossing the entire the geographical boundaries provided that basic information infrastructure is available. Now a days most of the documents in the libraries are available in electronic form. The transition from printing to electronic publishing has provided commercial publishers an excellent opportunity to produce journals electronically. Consortia were developed in different subjects among the sister and similar institutes to share the journal literature electronically for a vibrant use. Open access system had strengthened the scholarly communication system in which libraries became the dynamic entity of promoting such system. The commercial publishers started publishing electronic books which the libraries began to purchase those titles for the user groups. Databases, both in full text and bibliographic, indexes, abstracts, directories and encyclopedias, dictionaries and other reference works, etc are available in the market in electronic form which the libraries have acquired for further use for the users. Statistical sources of information are also available in electronic form and libraries found

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DBT's Electronic Library Consortium (DELCON): A Vital New Approach for Networking under 'Life Sciences, Biotechnology & Bioinformatics' Environment

D. D. Lal

Introduction

The consortium is a Latin word, meaning 'partnership, association or society' and derives from consors 'partner', itself from con- 'together' and sors 'fate', meaning owner of means or comrade. According to Oxford Dictionary "Consortium means temporary association of a number of countries, institutions, organizations, companies, banks etc. for a common purpose. A library consortium is a collective activity of a group of libraries towards a joint objective of sharing resources. Library consortium is a community (a supportive) of two or more information agencies which have formally agreed to cooperative and synchronize of two or more libraries or information agencies which have formally agreed to organise, collaborate or consolidate certain functions" to achieve joint objectives it is an association of group of libraries to achieve joint benefits.

A generic term to indicate any group of libraries that are working together toward a common goal, whether to expand cooperation on traditional library services (such as collection development), or electronic information services. The term is now used possibly too broadly, and includes everything from formal legal objects (such as incorporated or governmental agencies) to informal groups that come together exclusively to achieve better pricing for purchasing electronic information.

The simplest definition of Library Consortia would be the coming together of libraries to achieve a common goal that is beyond what an individual library could achieve on its own.

The world of library consortia is expanding speedily, and with it the range of services and activities undertaken.

However, the underline inspiration remains the same: the sharing of increasingly expensive library resources in the most cost effective manner for mutual benefit and general cost savings. There are many hundreds and possibly thousands of library consortia around the world planned along many different lines.

Cooperation between institutions for sharing their library resources is being practiced for decades. Traditionally, the primary purpose of establishing a consortium is to share physical resources including Journals / periodicals and books amongst members. However, the mode of cooperation has gone under a transformation with infusion of new information technology from traditional (print-based) environment to digital environment. The emergence of Internet, particularly, the World Wide Web (WWW) as a new media of information delivery triggered proliferation of Web-based full-text online resources. Increasing number of publishers are using the Internet as a global way to offer their publications to the international community of scientists. The technology provides an unparalleled media for delivery of information with greater speed and economy. The libraries and information centres, as heavy consumers of electronic journals and online databases, stand to benefit greatly from this technology-driven revolution.

Shared subscription or consortia-based subscription to electronic resources through the consortia of libraries, on one hand, permits

successful deployment and desktop access to electronic resources at a highly discounted rates of subscription and on the other hand, it meets with the increasing pressures of diminishing budget, increased user's demand and rising cost of journals. The library consortia, on the basis of sheer strength of the number of institutions, offer healthy business growth opportunities to the electronic publishers and thus attract the best possible price and terms of agreements.

About 'DELCON Consortium'

The DBT's Electronic Library Consortium called as "DeLCON". The 'DeLCON Consortium' has been set up by the DBT to promote the use of electronic databases and full text access to journals by the Research and academic community in the country.

The 'DBT's Electronic Library Consortium (DeLCON)' is major initiative of the 'Department of Biotechnology (DBT)' to bring qualitative change in their research Institutions. It was launched in January, 2009 with the 10 DBT member Institutions (including DBT H.Q. & ICGEB) with a large number of high impact online journals. It is a national initiative for providing access to scholarly electronic resources including full-text and bibliographic databases in all the life science subject disciplines to DBT Institutional community. It facilitates access to high quality e-resources to DBT research Institutions in the country to improve teaching, learning and research.

The 'DeLCON Consortium' provides current as well as archival access to more than 917 core and peer-reviewed journals and one bibliographic database (SCOPUS Database) in different disciplines from 20 Foreign publishers and some of aggregators. The access to all major e-resources was given to 10 DBT Institutions in the beginning of the year 2009. It has now been extended to new 17 more DBT Institutions in 2nd phase of extension in this year 2010 and further 07 members added in the 3rd phase of extension in the Year 2011.

The Faculties, Scientists, Research Scholars, Students and Project Assistants of Institutions covered under DeLCON are the primary beneficiaries. DBT sponsored the entire expenses for DBT organizations for providing e-Journals access through 'DeLCON Consortium'.

The DeLCON comprises the following 33 Member Institutions which are given below :

DELCON 33 Members

1st Phase of Delcon Members (2009)

- National Brain Research Centre (NBRC), Manesar
- Department of Biotechnology (DBT), New Delhi
- National Institute of Plant Genome Research (NIPGR) – New Delhi
- National Institute of Immunology (NII) – New Delhi
- National Centre for Cell Science (NCCS) – Pune
- Institute of Life Sciences (ILS) – Bhubaneswar
- Institute of Bioresources and Sustainable Development (ISBD) – Imphal
- Centre for DNA Fingerprinting and Diagnostics (CDFD) – Hyderabad
- Rajiv Gandhi Centre for Biotechnology (RGCB) – Thiruvananthapuram
- International Centre for Genetics and Engineering Biotechnology (ICGEB), New Delhi

2nd Phase of Delcon Members (2010)

- The Wellcome Trust-DBT India Alliance, Hyderabad (further excluded in the year 2011)
- Dibrugarh University (DU), Assam
- Assam University (AU), Silchar
- North Eastern Regional Institute of Science & Technology (NERIST), Arunachal Pradesh
- North East Institute of Science & Technology (NEIST), Assam
- Mizoram University (MizU), Mizoram

- D. M. College of Science (DMC), Manipur
- Sikkim University (SU), Gangtok
- College of Veterinary Science, Assam Agricultural University (CVSAAU), Guwahati
- St. Anthony's College (SAC), Meghalaya
- Biotechnology Industry Research Assistance Program (BIRAP), New Delhi
- Gauhati University (GU), Assam
- Manipur University (ManU), Imphal
- College of Veterinary Science & Animal Husbandry Central Agricultural University (CVSAHCAU), Mizoram
- Rajiv Gandhi University (RGU), Arunachal Pradesh
- Nagaland University (NU), Nagaland
- North-Eastern Hill University (NEHU), Shillong

3rd Phase of Delcon Members (2011)

- Indian Institute of Technology Guwahati (IITG), Guwahati, Assam
- National Agri-Food Biotechnology Institute (NABI), Mohali, Punjab
- National Institute of Biomedical Genomics (NIBHG), Kalyani, Kolkata
- Regional Centre for Biotechnology (RCB), Gurgaon
- Tezpur University (TU), Tezpur, Sonitpur, Assam
- Transnational Health Science & Technology, Institute, Gurgaon
- Sikkim State Council of Science and Technology (SSCST), Gangtok, Sikkim

In terms of number of users, the DBT's Electronic Library Consortium (DeLCON) is the largest Consortium in India in the term of Life Sciences & Biotechnology Subject area with a vision and plan to reach out to all

DBT Institutions departments, Research Institutions, Universities, and their colleges affiliated to the DBT, over a period of time.

Objectives

The main objective of the DBT's e- Library Consortium (DeLCON) is to provide access to qualitative electronic resources including full-text and bibliographic databases to DBT institutions at a lower rates of subscription. The major aims and objectives of the DBT's e- Library Consortium (DeLCON) are as follows :

- To provide access to a high-quality and scholarly electronic resources to a large number of DBT institutions including research Institutions, universities and colleges at substantially lower rates of subscription and at most favourable terms and conditions;
- To promote rapid and efficient access to scholarly content to the users and to create and promote use of DeLCON in teaching and learning in research organizations, universities, and colleges in India;
- To extend the benefit of Consortium to its associate members
- To impart training to the users, librarians, research scholars and faculty members of the institutions in use of electronic resources with an aim to optimize their usage;
- To promote use of e-resources with gradual decrease in print subscription;
- To promote interaction and inter-library cooperation amongst the participating DeLCON members;
- To evaluate the usage of the subscribed resources and to identify new resources that are required to be subscribed under the DeLCON Consortium;
- To bring qualitative change in teaching, learning and research with an aim to meet the ever growing challenges of globalization of higher education; and
- To increase the research productivity of the institutions both in terms of quality and quantity of publications.

Needs and Purpose of Delcon Consortium

Thorny problems like shrinking budgets, growing patron demands, rising costs of books and periodicals led to the crystallization of such a concept for the Library & Information Systems. The primary purpose of Library Consortium is to share information resources, which means the Books, Periodical, e-journal, e-books so and so forth. Advances in Computer, information and telecommunication technologies have revolutionized the way in which information is acquired, stored, accessed and transferred. Sharing electronic resources has rapidly become another important goal for library consortia.

Users of Library and Information Services Systems of Biotechnology are widely spread throughout India and located in different locations. A number of research and development works are going on regularly and the users requires a daily updates. Howsoever, they get the information after a big gap of time in the hard copy form.

The DeLCON consortium was needed for DBT libraries because of the following :

1. Information explosion
2. Diversity of user needs
3. Financial crunch
4. Impossibility of self-sufficiency

Factors Considered Before Formation of Delcon

Various factors to be taken in account for an effective functioning of a successful DeLCON consortium like resources identification on the basis of usage and usability, long term planning of the technology infrastructure, access to back runs of periodicals will have to clearly spelt, copyright and licensing, archival issue, price issue should be economically favorable.

Last but not least, designing and launching the DeLCON consortium was made in order achieve its long term Sustenance and robust models towards achieving the above goals.

These are the formulations covered under the DeLCON Consortium:

1. The caption & call for 'Sharing Resources, Sharing Risk, Sharing Success'
2. Identification and evaluation of Infrastructure requirements
3. Identifying & evaluation of electronic resources and subscription
4. Identification and evaluation information resources of print format of subscription
5. Establishment of Integrated model to enable single web based Interface / Portal.
6. Consolidation of the electronic resources for online access
7. Cost effectiveness – (Independent / Consortium, Distributed vs Centralized).
8. Copyright issues & right management
9. Services & Benefits to be offered
10. Licensing strategies & terms of access
11. Participation & membership
12. License negotiations & subscription
13. Access control & delivery
14. Training and Workshop
15. Quality improvements

Main Advantages of Delcon Consortium

Some of the important advantages of the DeLCON consortium are as follows :

- Consortia-based subscription to electronic resources provides access to wider number of electronic resources at substantially lower cost;
- Optimum utilization of funds.
- Facilities to build up digital libraries

- Helpful to provide better library services like CAS and SDI
- Cost Sharing for Technical and training support
- Electronic Journals demand neither library space nor shelving costs nor can they be stolen from the library
- The DeLCON consortium have been offered better terms of licenses for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institution; and
- Available 24 hours a day, 7 days a week i.e. called 24X7 access
- Economy in maintaining

DeLCON is a non-profit making and an association of library, documentation and information centres of the institutions under the Department of Biotechnology'.

benefits and Features of Delcon Consortium

The consortia-based subscription to e-resources is a viable solution for increasing the access to electronic resources across DBT institutions at a lower rate of subscription. Major benefits of DeLCON consortium are as follows:

- The DeLCON Consortium acts as a single-window service for a large number of DBT Institutions with their diverse research and academic interest;
- The DeLCON Consortium, with its collective strength of participating institutions, attracts highly discounted rates of subscription with most favourable terms of agreement for a wider range of e-resources. Most of the e-publishers have responded positively to the call of the Consortium. The rates offered to the consortium are lower by 60% to 99% depending upon the category of DBT institutions;
- Users have immediate access to material previously not subscribed to, at no incremental cost for accessing back files;
- It improves the existing library services and reduced the subscription cost;

- The research productivity of DBT institutions is expected to improve with increased access to international full-text resources (Journals and database);
- The DeLCON Consortium is expected to trigger remarkable increase in sharing of electronic resources amongst participating DeLCON members
- The DeLCON Consortium has been opened-up to add more DBT institutions through its next phase of extension and other DBT institutions can also join the DeLCON Consortium and get the benefit of not only highly discounted rates of subscription but also the favourable terms and conditions;
- Members of the DeLCON Consortium have the benefit of cap on the annual increase in the rates of subscription. While the usual increase in price of e-resources vary from 15 % to 20%, but the DeLCON consortium members enjoys the cap on increase in price ranging from 5% to 7%;
- The DeLCON Consortium is offered better terms of agreement for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institutions; and
- Since the subscribed resources is accessible online in electronic format, the DBT institutions have less pressure on space requirement for storing and managing print-based library resources. Moreover, all problems associated with print media such as their wear and tear, location, shelving, binding, organizing, etc. are not an issue for electronic resources.

Covered Electronic Resources Under 'Delcon Consortium'

The DeLCON Consortium subscribes to electronic resources covering all major Life Science & Biotechnology subject discipline being taught in the DBT research Institutions, Universities & Colleges. It includes wide variety of materials e.g. e-journals, bibliographic databases, reviews published by scholarly societies, university presses, institutional and commercial publishers. The DeLCON Consortium subscribes to 917 full-text e-resources and 01 bibliographic database

from 20 renowned foreign publishers and some of aggregators. The member institutions are provided differential access to these resources based on their needs and activity profile as per the recommendation of the National DeLCON Steering Committee.

The complete list of full-text resources (e-Journals) and bibliographic databases subscribed under the DeLCON Consortium is given in Appendix I.

Selection of Resources for the Electronic Resources Under Delcon

The print & online collection base available in DBT research Institutions libraries and their requirements was surveyed with an aim to identify and determine e-resources to be subscribed under the DeLCON Consortium. In order to understand the collection base in DBT member Institutions, meetings of DBT Directors, & DeLCON Nodal Officers were held in different parts of the country and their views and feedbacks were obtained. Based on the feedbacks received from DBT Members, e-resources of various publishers were identified and evaluated before negotiating licensing arrangements. Keeping in view the diversity of DBT Research Institutions programmes offered by DBT Institutions, every attempt was made to subscribe to e-resources that are multidisciplinary in nature with wide scope and coverage.

All e-resources were evaluated for their i) qualitative and quantitative contents; ii) coverage; iii) their availability on different platforms and their comparative advantages / disadvantages; and iv) rates applicable for these resources to individual institutions as well as to other consortia. The electronic resources proposed for consortia-based subscription were selected based on the following major criteria:

- Resources from scholarly societies, university presses and not-for-profit projects were preferred over commercial publishers;
- Well-established multi-disciplinary resources with broad coverage were preferred over highly specialized sources targeted for specialists;
- Electronic resources already on subscription in the DBT

Appendix I

1. American Association for Advancement of Science	http://www.sciencemag.org	(3 Journal)
2. American Association for Cancer Research (AACR)	http://www.aacr.org	(8 Journals)
3. American Chemical Society (ACS)	http://pubs.acs.org	(37 Journals)
4. Annual Reviews	http://www.annualreviews.org	(23 Journals)
5. American Society for Biochemistry and Molecular Biology	http://www.jbc.org	(2 Journal)
6. American Society For Microbiology	http://www.asm.org/	(12 Journal)
7. Cold Spring Harbor Laboratory Press Journals	http://www.cshl.edu	(4 Journals)
8. Informa Healthcare / Taylor and Francis	http://www.informaworld.com	(7 Journals)
9. Lippincott William and Wilkins (LWW) / Wolter and Kluwer / OVID	http://ovidsp.ovid.com	(11 Journals)
10. Mary ANN Liebert	http://www.liebertonline.com	(7 Journals)
11. Nature Publications	http://www.nature.com	(40 Journals)
12. Oxford University Press (OUP)	http://www.oxfordjournals.org	(18 Journals)
13. Springer India	http://www.springerlink.com	(237 Journals)
14. Society for General Microbiology	http://mic.sgmjournals.org	(3 Journals)
15. Society for Hematology	http://bloodjournals.hematologylibrary.org	(1 Journal)
16. Wiley-Blackwell	http://www.interscience.wiley.com/cgi-bin/home	(86 Journals)
17. Elsevier Science (ScienceDirect)	http://www.sciencedirect.com	(415 Journals)
18. American Society of Plant Biologist	http://www.aspb.org/	(2 Journals)
19. American Association of Immunologist	http://www.aai.org/	(1 Journals)
20. Scopus Database	http://www.scopus.com	(1 Database)

research Institutions were preferred over those which are not being used in any of them;

- Resources that are 'electronic-only' were preferred over those that are print-based;
- Resources that are very important but highly cost-intensive were preferred over those which are less important or less-used but low cost;
- Resources where electronic versions are made available free on subscription to their print versions were avoided as far as possible; and
- Selections were made on usage / suitability of e-resources to DBT Institutions.

Subject Coverage Under 'Delcon Consortium'

The DeLCON Consortium covers all the disciplines and subjects coming under Life Sciences i.e. Biotechnology, Bioinformatics, Biochemistry, Biology, Chemical Biology, Sciences, Immunology, Neuroscience, Plant Genome, Plant Biology, Microbiology, Physiology, Psychology, Physiotherapy, Psychotherapy, Genome, Gene, Genetics, Mathematics, Physics, Chemistry, Radiology, Medicines, Computational Biology, Cell Biology, Cell Sciences, Molecularbiology, Molecular and Cellular Biology, Computational Neuroscience, System Neuroscience etc.

Procedures to Subscribe E-Resources

Once the electronic resources proposed for subscription are identified, proposals invited from the publishers of e-resources / their authorized representatives. Electronic publishers / their representatives are also invited for formal negotiations on their products and services. In the formative years of the DeLCON Consortium, the 'DeLCON Steering Committee' negotiates the lowest rates of subscription and favourable terms of agreement.

Negotiation for subscription to e-resources perform by a Negotiation Committee which constituted by the Department of Biotechnology

(DBT) as per the purchase policies and rules.

While the DeLCON Steering Committee takes policy decision regarding inclusion of member institutions, e-resources, etc., the Negotiation Committee is responsible for negotiating rates of subscription to e-resources with different publishers for all DBT Institutions. Once resources and members of DeLCON are finalized, the DeLCON places order for subscription to e-resources to the publishers as per the purchase rules. The DeLCON is also responsible for signing License agreement on behalf of the number of DBT Institutions covered under the DeLCON. The DeLCON supports the administrative management of Consortium from 'National Brain Research Centre', Manesar.

Access to Journals Subscribed Under Delcon Consortium

Full text Access to Journals can be had either directly visiting the publisher site or through the Bibliographic databases. Many of the Bibliographic databases will have facility to browse the publications or search as per query. The access to all these resources being subscribed are made available to 33 DBT Institutions i.e. 10 DBT Centers from 1st January 2009 and extended 1st phase for 17 and 2nd phase for 07 DBT institutions simultaneously from 2010 & 2011.

The screenshot shows the DeLCON website interface. At the top, there are navigation links: "Search", "Web Page", "Home", "Page", "of", "DelCON Consortium". Below this, a search bar is present with the text "DBT's E-Library Consortium (DeLCON) Journals Available to Access: <http://delcon.gov.in>". The main content area features the DeLCON logo and a list of journals. The list includes titles such as "Journal of Cellular Biochemistry", "Journal of Cellular Biochemistry", "Journal of Cellular Biochemistry", etc. There are also some graphical elements and a sidebar on the right.

Operations of Delcon Consortium

The DBT Institutions have been fully funded by DBT for connectivity under DeLCON and will have network connectivity. Individual Institutions will then have unique static IP address through which access is given by the publishers for which subscriptions made. However entire programme will be administered, monitored and maintained by 'DeLCON Nodal Centre (NBRC)' and 'DeLCON National Steering Committee'.

Conclusion

The 'DeLCON Consortium' is resources-sharing Organization formed by DBT. Variable termed as cooperatives, networks, collectives, alliances or partnership etc. the DBT e-Library Consortium is an association established by formal agreement, usually for the purpose of improving services through resource sharing among its members.

The DBT institutional libraries were facing challenges in providing information to satisfy the users. A wide variety of technology and resources options that exist now are regularly updated. Considering the size and volume of efforts for implementation of the whole initiatives, a pilot study was made for finding a more effective way to archive the goal. Therefore it was described as a model approach which helps to understand the potential requirement, processes and above all the cost involved in undertaking the DeLCON Consortium in a real situation. The framework was helpful at the implementation level.

The DeLCON Consortium is at the doorsteps to prove the library cooperation locally, regionally, nationally and internationally. It is one of the emerging tool kits for most of the libraries to survive in the changed environment under the shadow of ever changing information technology.

The DeLCON Consortium with its collective strength of participating Institutions, has attracted highly discounted rates of subscription with most favorable terms of agreement. The DeLCON Consortium exploiting the features of the e-journals as well as in effecting savings.

References

- Arora, J. (2005), Managing electronic resources through consortia: an overview. In: *Library and Information Networking - NACLIN - 2005: Proceedings of the National Convention on Library Information networking*, held at PES Institute of Technology, Bangalore, August 22 - 25. Edited by Kaul, H.K and Sen, Gayathri. New Delhi: DELNET, pp.145-170.
- Bawdekar, N. (2003), FORSA: A historical review and future possibilities in resource sharing: Paper presented during the workshop on Forging Collaborative Partnerships: Consortium of Libraries and Department of Atomic Energy Institutions and FORSA Libraries meet organized by TIFR, Mumbai during July 28-30.
- Birdie, Christina (2002), New acquisitions with new partners. Are we ready for it? IATUL Proceedings (New Series), Vol.12, Kansas City, USA, 2-6 June. <http://www.iatul.org/conference/proceedings/Vol.12/>
- White, M. (2001) Electronic access to scientific journals: problems, problems. *E-Content*, Vol.24(10), pp.66-67.
- Mahajan, P. (2005), "Academic libraries in India: a present-day scenario", *Library Philosophy and Practice*, Vol. 8 No.1, pp. 1-4.
- Jagdish, Arora. (2003), The International Information & Library Review, Vol. 35, Issue 1, pp. 1-17.
- Janakiraman, S. (2002), 'Thoughts on Library Consortium' Proceedings of the Round Table on Sharing of E-journals through Consortia in Indian Libraries, Bangalore. November, 28-29. pp.23-35.
- Arora, Jagdish (et.Al.) (2004), 'Library consortia and resource sharing initiatives in India. A white paper'. HELINET Consortium. Rajiv Gandhi University of Health Sciences, Bangalore. May, 1, 2004.
- Murthy, T A V. Kembhavi, A and Cholin, V S (2004), 'Access to scholarly journal and databases : UGC-Infonet: E-Journals Consortium' University news' weekly journal of higher education, volume 42, Number 34.
- Goudar, IRN and Poornima Narayana. (2004), 'Emerging pricing models for E-Journals Consortia and Indian Initiatives' Proceedings of the International Conference on Digital Libraries, (ICDL 2004). New Delhi. 24-27 February 2004. pp.333-341.
- Sreekumar, M.G et. al. (2005), 'Library capacity building through E-Journal Consortia'. 7th MANLIBNET 'Digital Libraries in Knowledge Management : Indian Institute of Management Kozhikode, May 5-7.
- Consortium for e-Resources in Agriculture-2008. IARI, New Delhi, 2008. pp.1-2.
- Xenidou-Dervou, C. (2001), Consortia journal licensing: experiences of Greek academic libraries. *Interblending & Document Supply*, 29, pp.120-125.
- Satyannarayana, N.V., Krishnan, S. and Arora, J. (2004), Library consortia and resource sharing initiatives in India: A White Paper. Bangalore, Rajiv Gandhi University of Health Sciences. pp.54.
- Patil, Y. M. et al. (2006), Indian consortia models: FORSA libraries experiences.

- Paper presented at the LISA V Conference: Common challenges, unknown solutions. Cambridge, Massachusetts, U.S.A., June 18-21, 2006.
- Patil, Y. M. (2003), Consortia efforts: an experience with FORSA Libraries. In: Workshop on – Forging collaborative partnerships – consortium of libraries of DAE Institutions, July 28-30, Mumbai, TIFR.
- Patil, Y. M. (2004), Resource sharing through consortia: an experience with FORSA Libraries. In: Proceedings of the Symposium on consortium approach to resource sharing: issue and policies, ed. By Madalli, Devika, P. Bangalore: DRIC, Paper N pp. 14.
- Gondar, I.R.N. (2002), E Journals: Breaking the pricing barrier. Paper presented at the Round Table on Consortia Models in India, held at Bangalore.
- Patil, Y. M. (2004), Managing change: consortia efforts in IT environment. In: Dr. P. S. G. Kumar Festschrift – Library and Information profession in India, Vol.1 (Part II): Reflections and redemptions, ed by Vashishth, C. P. And M.P.Satija. New Delhi: B.R.Publications, pp.465-486.
- Louis, Christina and Vagiswari, A. (1999), PAM-APF (Physics, Astronomy and Mathematics - Asia/Pacific Forum): Network for Resources sharing and Consortium formation. Proceedings of conference on Recent Advances in Information Technology, held at Kalpakkam, India, pp.182-194.
- Nfila, R.B. and Darko-Ampem. K. (2000), Developments in academic library consortia from 1960 to 2000: a review of literature. Library Management, Vol.23(4/5), pp. 203-212.
- Alexander, A. (1998), Why do we do it? The Journal of Electronic Publishing, Vol. 3(3). <http://www.press.umich.edu/jep/03-03/index.html>
- Arora, Jagdish and others. (2004), Library Consortia and Resources Sharing initiatives in India: A white paper. HELNET Consortium. Rajive Gandhi University of Health Sciences, Bangalore, May 1. pp.32.
- Jalloh, Brimah (2000), A plan for the establishment of a library network or consortium for Swaziland: Preliminary Investigations and Formulations. Library Consortium Management: An International Journal. 2(8) pp. 165-176.
- Gaur, Ramesh C (2003), Reengineering library and information services: process, people and technology. Mumbai: Allied Publishers. pp.112-114.
- Hiremath, Uma. (2001), 'Electronic consortia: resource sharing in the digital age' Collection Building, Vol. 20 Iss: 2, pp.80-88
- Moghaddam, Golnessa Galyani, Talawar, V.G. (2009), 'Library consortia in developing countries: an overview', Program: electronic library and information systems, Vol. 43 Iss: 1, pp.94-104.



Open Source Software for Library and Information Centers: An Overview of Problems and Prospects

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Introduction

The information evolution leads to the flood of publication. User needs are also rapidly growing. New technology for any discipline is not necessarily new from the broadest prospective, but technology that is finally capable of being widely adopted within the discipline. Library automation is also a part of new technology as it is based on the software to be chosen for work

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