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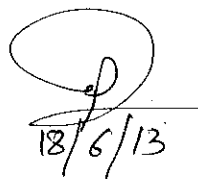
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Consortia based electronic information resource sharing in Department of Biotechnology Institutes in India

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In the current era of IT (Information technology), the information needs of the users have increased considerably that no library individually can meet all the information requirements of the users. This has required the need for efficient association and collaboration between libraries and information centres for sharing their available resources and information through networking. The consortia approach can be considered as a major step towards library collaboration in sharing electronic resources.

The paper describes the DBT's Electronic Resources Consortium (DeLCON).

Keywords: Consortia; Resource Sharing; Networking, Electronic Journals; Library Cooperation & Cooperation; DeLCON

Introduction

Library consortium is a community (a supportive) of two or more libraries which have formally agreed to cooperate, synchronize, organise, collaborate or consolidate certain functions to achieve joint objectives. According to Oxford Dictionary, consortium means temporary association of a number of countries, institutions, organizations, companies, banks etc. for a common purpose. 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.

Irrespective of definitions and meanings, the underlying 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 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 under gone 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 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.

There are a few consortia in India being operated by different organizations. Some of them are as given below:

- UGC-INFONET [<http://www.inflibnet.ac.in>]
- INDEST (Indian National Digital Library in Science and Technology) Consortia [<http://paniit.iitd.ac.in/indest/>]
- NKRC (National Knowledge Resource Centre) / CSIR e-Journal Consortia, [<http://nkrc.niscair.res.in/>]

- FORSA (Forum for Resource Sharing in Astronomy) [<http://www.iiap.res.in/library/forsa.html>]
- IIM Library Consortia, [<http://www.iimb.ernet.in/>]
- ICICI Knowledge Park, [<http://www.iciciknowledgepark.com>]
- DAE Library Consortium, [<http://www.tifr.res.in/~libws/>]
- ICMR Library Consortia, [<http://www.jccc-icmr.informindia.co.in/about/about.asp>]
- HELINET (Rajiv Gandhi University of Health Sciences, Karnataka) [<http://www.rguhs.ac.in/>]
- DRDO (Defence Research and Development Organization) [<http://dsl.drdo.gov.in/ejournals/index.htm>]
- DeLCON (DBT's Electronic Library Consortium) [<http://delcon.gov.in>]

The DeLCON

The setting up of a separate Department of Biotechnology (DBT), under the Ministry of Science and Technology in 1986 gave a new impetus to the development of the field of modern biology and biotechnology in India. In more than a decade of its existence, the department has promoted and accelerated the pace of development of biotechnology in the country. Through several R&D projects, demonstrations and creation of infrastructural facilities a clear visible impact of this field has been seen. The department has made significant achievements in the growth and application of biotechnology in the broad areas of agriculture, health care, animal sciences, environment, and industry.

To meet the growing R&D information requirements of the DBT Institutes, the DBT's Electronic Library Consortium (DeLCON), a major project of the Department of Biotechnology (DBT) to bring qualitative change in its research institutions was launched in January 2009. 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 institutions in the country to improve teaching, learning and research.

The access to all major e-resources was given to 10 DBT Institutions in the beginning of the year 2009. It was extended to 17 more DBT Institutions in the 2nd phase in the year 2010 and another 7 members were added in the 3rd phase the year 2011. The DeLCON provides current as well as archival access to more than 917 core and peer-reviewed journals in different

disciplines from 20 publishers and some of aggregators and one bibliographic database (SCOPUS).

The faculties, scientists, research scholars, students and project assistants of institutions covered under DeLCON are the primary beneficiaries. DBT sponsors the entire expenses for DBT organizations for providing e-journals access through DeLCON. The 33 member institutions of DeLCON is given in Table 1.

In terms of number of users, the DBT's Electronic Library Consortium (DeLCON) is the largest Consortium in India constituted in the area of biotechnology and life sciences with a vision and plan to reach out to all DBT institutions, research institutions, select universities and their colleges.

Objectives of DeLCON

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 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 DeLCON;
- To bring qualitative change in teaching, learning and research with an aim to meet the ever growing challenges of globalization of higher education;
- To increase the research productivity of the institutions both in terms of quality and quantity of publications.
- 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; and
- To promote use of e-resources with gradual decrease in print subscription;

Features of DeLCON

The consortia-based subscription to e-resources is a viable solution for rising the access to electronic

resources across DBT institutions at a lower rate of subscription. Major benefits of DeLCON are as follows:

- The DeLCON acts as a single-window service for a large number of DBT Institutions with their diverse research and academic interest;
- The DeLCON, with its collective strength of participating institutions, attracts highly discounted rates of subscription with most favourable terms of agreement for a wider range

Table 1—Member institutions of DeLCON

DeLCON Members (2009) Phase I	1	National Brain Research Centre (NBRC), Manesar
	2	Department of Biotechnology (DBT), New Delhi
	3	National Institute of Plant Genome Research (NIPGR), New Delhi
	4	National Institute of Immunology (NII), New Delhi
	5	National Centre for Cell Science (NCCS), Pune
	6	Institute of Life Sciences (ILS), Bhubaneswar
	7	Institute of Bioresources and Sustainable Development (ISBD), Imphal
	8	Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad
	9	Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram
	10	International Centre for Genetics and Engineering Biotechnology (ICGEB), New Delhi
DeLCON Members (2010) Phase-II	1	The Wellcome Trust-DBT India Alliance, Hyderabad (excluded in the year 2011)
	2	Dibrugarh University (DU), Assam
	3	Assam University (AU), Silchar
	4	North Eastern Regional Institute of Science & Technology (NERIST), Arunachal Pradesh
	5	North East Institute of Science & Technology (NEIST), Assam
	6	Mizoram University (MizU), Mizoram
	7	D. M. College of Science (DMC), Manipur
	8	Sikkim University (SU), Gangtok
	9	College of Veterinary Science, Assam Agricultural University (CVSAAU), Guwahati
	10	St. Anthony's College (SAC), Meghalaya
	11	Biotechnology Industry Research Assistance Program (BIRAP), New Delhi
	12	Gauhati University (GU), Assam
	13	Manipur University (ManU), Imphal
	14	College of Veterinary Science & Animal Husbandry Central Agricultural University (CVSAHCAU), Mizoram
	15	Rajiv Gandhi University (RGU), Arunachal Pradesh
	16	Nagaland University (NU), Nagaland
	17	North-Eastern Hill University (NEHU), Shillong
DeLCON Members (2011) Phase-III	1	Indian Institute of Technology Guwahati (IITG), Guwahati, Assam
	2	National Agri-Food Biotechnology Institute (NABI), Mohali, Punjab
	3	National Institute of Biomedical Genomics (NIBHG), Kalyani, Kolkata
	4	Regional Centre for Biotechnology (RCB), Gurgaon
	5	Tezpur University (TU), Tezpur, Sonitpur, Assam
	6	Transnational Health Science & Technology, Institute, Gurgaon
	7	Sikkim State Council of Science and Technology (SSCST), Gangtok, Sikkim

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;

- The DeLCON is expected to trigger remarkable increase in sharing of electronic resources amongst participating DeLCON members;
- The research productivity of DBT institutions is expected to improve with increased access to international full-text resources (journals and databases);
- 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 DeLCON has been opened-up to add more DBT institutions through its next phase of extension and other DBT institutions can also join the DeLCON and get the benefit of not only highly discounted rates of subscription but also the favourable terms and conditions;
- The DeLCON 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;
- Members of the DeLCON 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 members have the cap on increase in price ranging from 5% to 7%; 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.

Resources under DeLCON

The DeLCON subscribes to e-resources covering most important life science & biotechnology subject disciplines 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 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 is given in Table 2. The phase budget and members in DeLCON is given Table 3.

Procedures and selection of resources under DeLCON

In order to understand the compilation base in DBT member institutions, meetings of DBT Directors and DeLCON Nodal Officers were held in different parts of the country and their views and feedbacks were obtained. The print & online collection base available in DBT research institutions libraries and their needs were surveyed with an aim to recognize and determine e-resources to be subscribed under the DeLCON. Based on the feedbacks received from DBT members, e-resources of various publishers were recognized and evaluated before negotiating licensing arrangements. Keeping in view the multiplicity of research programmes pursued 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 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;

Table 2—Resources under DeLCON

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.asn.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	Marry 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://www3.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)

Table 3—DeLCON members and funding

DeLCON Phase	Year	No. of members	Paid to publishers (Rs. Cr)	Total Members at the end of the year
Phase I	2009	10	9.33	10
	2010	10	13.17	10
	2011	10	14.65	10
Phase II	2010	17	10.99	27
	2011	16	13.79	26
Phase III	2011	7	3.70	33

- 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

The DeLCON cover-up 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, molecular biology, molecular and cellular biology, computational neuroscience, system neuroscience etc.

Process of subscribing to e-resources in DeLCON

The electronic resources planned for subscription are recognized, 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, the 'DeLCON Steering Committee' negotiated 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 concerning inclusion of member institutions, e-resources, etc., the Negotiation Committee is accountable for negotiating rates of

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subscription to e-resources with different publishers for all DBT Institutions. Once e-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 accountable for signing license agreement on behalf of the number of DBT Institutions covered under the DeLCON. The DeLCON supports the organizational management of Consortium from National Brain Research Centre, Manesar.

Conclusion

The DeLCON was constituted by DBT as the libraries of DBT institutions were facing challenges in providing information to meet the users. Since 2009, the consortium has grown in terms of the number of resources and users. The consortium is set to grow further in the coming years and envisages catering to all the biotechnology and life science institutes in the country.

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