

Role and Contribution of government funded Digital Library Consortia in India: A study

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ABSTRACT:

This survey-based study carried out to make assessment and evaluation of major Indian Digital Library Consortia. The major government-funded Digital Library Consortia (DLC) are playing decisive role in the National Information Policy. The role and contribution of government-funded DLC is elaborated in depth to compare them with International counterparts. All the government Universities, Research agencies; Technical and Academic Institutions are the active units of a huge network of networks. The shared e-journals and e-content greatly contributing to economical mode of resource sharing and co-operation. It is an evolutionary record of library co-operation from Library networking to Digital library consortium. Being a developing country, Indian Library Consortia greatly contributing to the universal goal for preservation of digital knowledge. The advent of consortia has enabled cross repositories search by harvesting metadata at national as well as international level.

KEYWORDS:

Digital Library Consortia, Digital Library, Institutional Repository, Library Co-operation, Resource sharing.

INTRODUCTION:

The information is like the basic cell that constitute huge body of learned society, And all the constituent parts are well connected and co-ordinated. Without latest and up-to-date information, society is lame and deprived. It is the need of the hour to exchange of ideas or information crossing all the boundaries of language, creed or nationality. The credit goes to IT revolution, advancement in information & Communication technology. And specially with the advent of internet (WWW) and huge storage devices encouraged to digital media to dominate the traditional means of Knowledge Management. The Maximum utilization of digital platform with open source agreement made possible to create a global village. Institutional Repositories covering all sphere of life are preserving, exchanging the valuable research data worldwide. The smart network of networks is the platform of digital knowledge management and free flow of shared data. And specially Open Source software movement geared up the proliferation of Digital Libraries worldwide.

OBJECTIVES OF THE STUDY:

1. To enlist all government funded and private Sector Digital Library Consortia;
2. To assess the coverage of all govt. funded Digital library consortia at national as well as international coverage;
3. To evaluate & make comparison among the resources and memberships offered by govt. funded DLC;
4. To assess the level and degree of Resource Sharing among the member agencies and institutions;
5. To assess the contribution and positive role played by the major govt. funded Digital Library Consortia in the process of national information policy.

DIGITAL LIBRARY (DEFINITION):

“Digital Libraries are organised collection of digital information. They combine the structuring and gathering of information, which libraries are archives have always done, with the digital representation that computers have made possible”- (M. Lesk, 1997)

“Controlled collection of information bearing objects (IBOs) that are in digital form and that may be organised, accessed, evaluated and used by means of heterogeneous and extensible set of distributed services that are supported by digital technology”-(Terence R. Smith, 1997)

“A system providing a community of users with coherent access to a large, organised repository of digital information and knowledge. The digital library is not just one entity, but multiple sources seamlessly integrated”-(Clifford Lynch, 1995)

According to Digital Library Federation (DLF, USA)-“Digital libraries are organisations that provide the resources including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of and ensure the persistence over time of collection of digital works so that they are readily and economically available for use by a defined community or set of communities”.

DIGITAL LIBRARY CONSORTIUM (DEFINITION):

“Library Consortium is a group of libraries who partner to coordinate activities, share resources and combine expertise”- Wikipedia

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 (Singh & Rao, 2008). A consortia is an association of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objective of participating in a common activity or pooling their resources for achieving a common goal. (Singh & Rao, 2008).

(Hirshon, 1999) defines library consortia ‘a generic term to indicate any group of libraries that are working together towards a common goal, whether to expand cooperation on traditional library services (such as collection development) or electronic information services. It is now used perhaps too broadly, and encompasses everything from formal legal entities to information groups that come together solely to achieve better pricing for purchasing electronic information’.

THE OBJECTIVES OF LIBRARY CONSORTIA:

1. To reduce repetition of efforts; 2. To curb rising costs of journals; 3. In order to match with the international standards of resource sharing; 4. To remove licensing issues among the members; 5. To get well informed and up-to-date with international tie ups.

ADVANTAGES OF THE DIGITAL LIBRARY CONSORTIUM:

1. To get able to participate and mutually sharing of resources;
2. the economical method of journal subscription than traditional method;
3. the availability of sophisticated and more digital library services than conventional method;
4. the more faster delivery of digital library services;
5. the better execution of Copy Right Laws than before;
6. the best way of preserving digital content.

LIMITATIONS OF DIGITAL LIBRARY CONSORTIUM:

1. The wastage of labour, money and time in journal selection process;
2. The non-reliability of telecommunication means;
3. The complexity of Copy Right issues;
4. A huge initial investments in the establishment of digital library consortium;
5. The confusion and hesitation to participate;
6. Lack of printed copy of content

DIGITAL LIBRARY MOVEMENT:

It all started with the formal project of Digital Library. In 1994, a joint initiative taken by National Science Foundation (NSF); Dept. Of Defence Advanced Research Projects Agency (DARPA); and the National Aeronautics and Space Administration (NASA) in US, and top 6 universities were assigned the job of investigation and development of digital library with the success of phase-I, in 1998 the phase-II was started, which gave accent to the Digital Library Movement. The landmark projects like Mercury at CMU; Core at

Cornell University; Tulip and Envision at Cornell Institute of Digital Collection; Yale University Open Book Project; Networked Digital Library of Theses and Dissertation (NDLTD) and many more were the huge success in this direction. Simultaneously, Digital Library Movement took momentum in other leading countries like UK, Canada, Germany, Australia and also India.

DIGITAL LIBRARY MOVEMENT IN INDIA:

It was started with the library co-operation and resource sharing in traditional libraries at local level. There were started a large number of local area networks at various Metropolitan areas in India like DELNET in Delhi; BONET in Bombay; CALIBNET in Calcutta; PUNET in Pune; MALIBNET in Madras and so on. The first library network established in Mysore, a small city in 1995 with only 16 Institutional members.

The National Commission on libraries and Information Science's national programme for year 1975 defines a network as "Two or more libraries or other organisations engaged in a common pattern of Information exchange through communication for some functional purpose. A network usually consists of a formal arrangement whereby materials, Information and services provided by a variety of libraries and other organisations are available to all potential users. Library may be different jurisdiction but must agree to serve one another on the same basis as each serves its own constituents. Computers and telecommunication may be among tools for facilitating communication among them. It is now best economical way of sharing digital collections for member Institutions, which is contributed by external sources like- Commercial Publishers, Scholarly Societies, University Presses, aggregators and individuals etc.

MAJOR LIBRARY NETWORKS IN INDIA:

1. **INFLIBNET Centre:-** Information and Library Network (INFLIBNET) centre (established in 1992, and an example of Specialized Network) is an autonomous Inter-University Centre (IUC) of UGC involved in creating infrastructure for sharing of Library & Information Resources and services among academic and research institutes. It promotes automation of libraries, develop standards, creates Union catalogue of serials. Thesis, books, monographs and non-book materials provide access to bibliographic information sources, creates database of projects, institutions & specialists.
 2. **DELNET:-**It is an example of Metropolitan Area Network. DELNET (Developing Library Network) was started a project of the India International Centre in 1988 with initial financial support of National Information System in Science and Technology (NISSAT), presently DELNET activities are supported by NIC (National Informatics Centre) of the Planning Commission, Govt. Of India. DELNET gives membership to various libraries including Universities, Colleges, Govt. Depts. and provide technical assistance to them for creating and maintaining the bibliographic databases, serials control, union catalogue preparations, abstracting services, ILL, document transfer/coping facilitations and for accessing local, national and international databases. It has also created inter-library software such as DELSEARCH, DEL-Dos etc. For library networking databases creation and database access using different platforms.
 3. **MANLIBNET:-** Management Libraries Network was born in 2000. The network is not an on-line network like DELNET, INFLIBNET and so on. This is to provide a forum for all the management libraries to share information and ideas for development of libraries and business librarianship.
 4. **ADINET:-**ADINET (Ahmedabad Network) is an example of Metropolitan Area Network. It was registered as a society in 1994. And was sponsored by National Information System for Science & Technology (NISSAT), Dept. of Science and Industrial Research, Govt. Of India. It promotes sharing of resources and disseminate information among member libraries by networking them and creating a centralised Union Catalogue of their holdings.
- Many other national as well as state level library networks have also been developing including NICNET (National Informatics Centres Network, which is an example of General networks in India), INDONET (Data Network, which is also a general network), ERNET 1986 (Educational and Resources Network, which is an example of Specialized Network), CALIBNET 1992(Calcutta Library Network, and an example of Metropolitan Area Network) etc.

HISTORY:

It's all started initially with the task of preserving culture & heritage of India in mid 1990s. India became de-facto signatory of the UNESCO Universal Declaration on cultural Diversity in 2001. ShodhGanga, ShodhGangotri and IR @Inflibnet, are IRs to provide Open Access journals to faculty and researchers. IndCat is a Union Catalogue of various library resources VIDWAN is a Subject expert database and Info-Portal is a subject Gateway of Indian Scholarly Internet Resources etc. The current digital library initiatives of India, are-

1. Digital Libraries (for Books)-

- a) Digital Library of India Official Website: (<http://www.dli.ernet.in>)
b) Vigyan Prasar Digital of India) Official Website: (<http://vigyanprasar.gov.in/digilib/>)
c) NCERT Online Textbook Official Website: (<http://www.ncert.nic.in/textbooks/testing/index.htm>)

2. Digital Libraries (for Manuscripts)-

- a) Kalasampada: Digital Library Resources for Indian Cultural Heritage Official Website: (<http://www.ignca. In/dlrich.ntny>)
b) National Databank on Indian Art and Culture (NDBIAC) Official Website: (http://ignca.nic.in/ndb_0001.htm)
c) National Mission for Manuscripts Official Website: (<http://www.namami.org/index.htm>)
d) Muktabodha: Digital library and Archiving Project Official Website: (http://www.muktabodhalib.org/digital_library.htm)

3. Digital Libraries (for Electronic Theses & Dissertation (ETD))-

- a) ShodhGanga: Indian ETD Repository Official Website: (<http://ShodhGanga.inflibnet.ac.in/>)
b) Vidyaniidhi Digital Library Website: (<http://www.vidyanidhi.org.in>)

4. Institutional Repositories- more than 100 Institutional and Subject wise repositories, that are registered in Registry of Open Access Repository (ROAR) Official website: (<http://roar.eprints.org/>)

5. Digital Libraries (for Journals)-

- a) Indian Academy of Science Official website: (www.ias.ac.in/pubs/journals/)
b) Indian National Science Academy Official website: (www.insa.ac.in)
c) NISCAIR Research Journals Official website: (<http://nopr.niscair.res.in/>)
d) IndMed Official website: (<http://indmed.nic.in>)
e) Open Journal Access System@INFLIBNET Official website: (<http://www.inflibnet.ac.in/ojs/>)
f) Indian Journals.com Official website: (www.indianjournals.com)
g) Medknow Publication Pvt. Ltd. Official website: (www.medknow.com/journals.asp)
h) Kamla-Raj Enterprises Official website: (www.krepublishers.com/KRE-New-J/index.html)

The first digital library initiative took place in the year 2003 with the advent of INDEST & UGC-INFLIBNET Digital Library Consortium. The digital Library Consortium Movement made success with the govt. depts.. and leading govt. funded Institutions and agencies. The UGC-INFLIBNET Digital Library consortium is the pioneer project initiated by University Grants Commission, Govt. Of India in the year 2003. The major contribution in this direction was played by Ministry of Human Resources Development (MHRD), Council of Science and Industry Research (CSIR); UGC; INFLIBNET centre; AICTE; NISCAIR, Ministry of Communication Information Technology (MCIT); Dept. of Atomic Energy (DAE); Ministry of Health & Family Welfare (MHFW); Defence Research & Development Organisation (DRDO) and many more.

The soaring prices and non-availability of International E-journals have paced the race for existence of Digital Libraries. Now, Institutional Repositories (IR) have successfully Open Accessed Initiative to acquire access, share and preserve. These days all the leading research institutes and agencies are well connected by the concerned digital library consortium, which provides access to peer reviewed journals and valuable digital resources to their member institutions.

PRESENT STATUS:

The major library consortia in India are successfully collaborating at national level and also at international level. The present day list of various consortia in India, which provides access to peer reviewed journals to their member institutions are-

1. Forum for resource Sharing in Astronomy (FORSA) 1982
2. TIER library consortium 1999
3. ISI library consortium Deals 1999
4. STI Network for Resource Sharing amongst Sc. & Tech. Libraries 1999

5. DAE Consortium 2001
6. IIM libraries consortium 2001
7. JCCC & VIC 2002
8. CSIR E-journals consortium 2002
9. INDEST-AICTE Consortium 2003
10. RGUHS_Health Sc. Library & Inf. Network (HELINET) 2003
11. UGC-INFONET Digital Library Consortium 2004
12. MCIT Library Consortium 2005
13. BJ Medical Consortium 2006
14. Consortium for e-resources in Agriculture (CeRA) 2007
15. Electronic Resources in Medicine (ERMED) 2008
16. CSIR E-journal Consortium, now The National Knowledge Resource Consortium (NKRC) 2009
17. DRDO Consortium 2009
18. DeLCON Consortium 2009
19. National Library and Information services Infrastructure for Scholarly Content (N-List) 2010
20. VTU Consortium (Visweswaraya Technological University Consortium, Karnataka 2015
21. E-ShodhSindhu 2016
22. ICICI Knowledge Park.

1. e-ShodhSindhu

consortium for Higher Education Electronic Resources, which provides access to e-resources to Universities, Colleges and Centrally funded technical institutions in India. It is an initiative by Ministry of Human Resource Development, govt. Of India, which is being executed by INFLIBNET centre. It is actually a multi-discipline-oriented consortia.

Official website: <http://www.inflibnet.ac.in>

Affiliation & Support: University Grants Commission (UGC)

Consortium Model Type: Centrally funded model and also a type of National Consortium

Introduction:

Based on the recommendation of an expert commission, the Ministry of Human Resource Development (MHRD) has formed e-ShodhSindhu merging three consortia initiatives namely- UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE consortium. The e-ShodhSindhu will continue to provide current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(F) sections of the University Grant Commission Act.

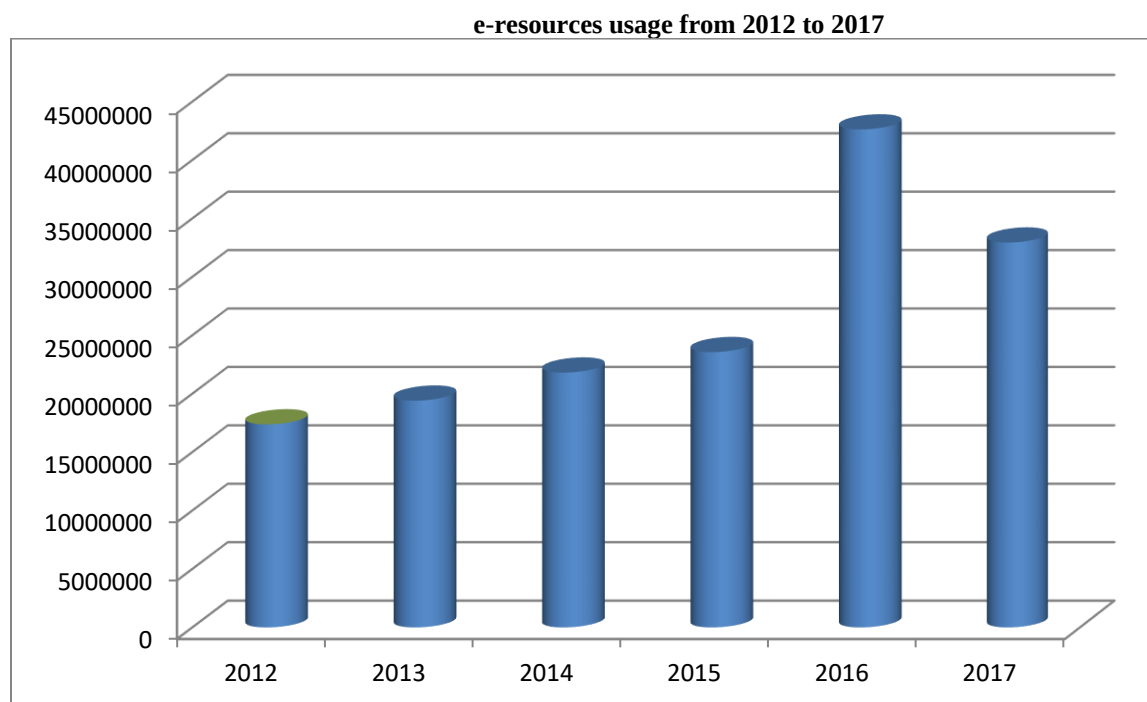
Objectives:

1. Setting up e-ShodhSindhu: Consortia for Higher Education E-Resources by augmenting and strengthening activities and services offered by three MHRD funded consortia;
2. Developing a formidable collection of e-journals, e-journal archives and e-books on perpetual access basis;
3. Monitor and promote usage of e-resources in member universities, colleges and technical institutions in India through awareness and training programmes;
4. Provide access to subscription based scholarly information (e-books and e-journals) to all educational Institutions;
5. Provide access to scholarly content available in open access through subject portals and subject gateways;
6. Bridge digital divide and more towards an information rich society;

7. Provide access to selected e-resources to additional institutions including open universities and MHRD-funded institutions that are not covered under existing consortia;
8. Take-up additional activities and services that require collaborative platform and are not being performed by existing consortia; and
9. Moving towards developing a national electronic library with electronic journals and electronic books as its major building blocks.

Table (1) e-resources usage

Year	Users (No. in Millions)
2012	17371890
2013	19404932
2014	21806462
2015	23559779
2016	42621123
2017	32938066



Graph (1) (Source: <http://www.inflibnet.ac.in>)

Collection:

It is enriched with 15000+ e-journals; 3135000+ e-books; 40 resources and 16 databases.

Members:

Broadly current membership can be divided into 219 core members & 214 Associate members. Its membership covers 87 Centrally –funded Technical Institutions (CFTI); 230 Universities (145 State Universities + 42 Central Universities+ 22 deemed Universities (UGC funded)+ 15 Law schools/Universities) + 6 other Institutes) ;94 Technical Institutes; 3000 + colleges.

UGC “University Grants Commission”, Govt. Of India, New Delhi

Official website: www.ugc.ac.in

It was inaugurated in Dec. 1953, but was formally established in Nov. 1956 as a statutory body of the Govt. Of India through an act of Parliament for the co-ordination, determination and maintenance of standard of University Education in India. The UGC has decentralised its operations by setting up six regional centres at Pune, Hyderabad, Kolkatta, Bhopal, Guwahati and Bangalore

MHRD “Ministry of Human Resources Development”, Govt. Of India, New Delhi www.mhrd.gov.in

It was created on Sept. 1985, through 174th. Amendment to the Govt. Of India, Rules 1961. It constitutes two depts..-1. Dept. Of School Education & Literacy (SE & L); 2. Dept. Of Higher Education (HE). The Dept. Of school education & literacy is responsible for development of school education and literacy in the country, the dept. Of Higher Education takes care of what is the largest Higher Education System of the World, just after the US and China. The Dept. Of SE & L has its eye set on the “Universalization of education” and making better citizen. The dept. Of HE, is engaged in bringing world class opportunities of Higher Education and Research to the country.

2. National Knowledge Resource Consortium (NKRC)

Official website: www.nkrc.niscair.res.in

Affiliation & Support: CSIR

Actualization by: NISCAIR, New Delhi

Consortium Model Type: A type of National Consortium & Centrally funded Model

Introduction:

The National Knowledge Resources Consortium (NKRC), established in year 2009, is a network of Library & Information centres of 43 Central Scientific & Industrial Research (CSIR) and 26 DST Institutions. NKRC’s origin goes back to the year 2001, when the CSIR set up to Electronic Journals Consortium to provide access to 1200 odd journals of Elsevier Science to all its users. Over a period of time, the consortium not only grew in terms of the number of researches but also in terms of the numbers of users as more like-minded institutions evinced interest to join the consortium.

Today NKRC facilitates access to 5000+ e-journals of all major publishers, patents, standards, citations and bibliographic databases. Apart from licensed resources NKRC is also a single point entity that provides its users with access to a multitude of open access resources. The Consortium envisions emerging as a leader to serve the research and development sector with much needed information to strengthen the research development system in the country.

Holdings:

It covers 28 among all the leading world class publishers. And have repository of 10000 + online journals.

Members:

25 major laboratories across the country are covered under this.

CSIR “Council of Scientific & Industrial research”, Ministry of science & Technology, Govt. Of India, New Delhi www.csir.res.in

The CSIR is known for its cutting edge Research and Development (R & D) knowledge base in diverse Science and Technology (S & T) areas, is a contemporary R & D organisation and has a dynamic network of 38 national laboratories, 39 outreach centres, 3 innovation complexes and 5 units.

CSIR’s R & d expertise and experience is embodied in about 4600 active scientists supported by about 8000 scientific and technical personnel. CSIR covers a wide spectrum of Science and technology-from Radio, Space Physics, Oceanography, Geophysics, Chemicals, Drugs, Genomics, Biotechnology and Nanotechnology to Mining, Aeronautics, Instrumentations, Environment Engineering and Information Technology.

CSIR is ranked at 84th. among 4851 Institutions worldwide and is the only Indian organisation among the top 100 global institutions according to the Scimago Institute Ranking World Report 2014, CSIR holds the 17th. Rank in Asia and leads the country at the first position.

NISCAIR “National Institute of Science Communication & Information Resources”, New Delhi

Official website: www.niscair.res.in

NISCAIR came into existence on Sept. 2002 with the merger of National Institute of Science Communication (NISCOM) and Indian National Scientific Documentation Centre (INSDOC), both the earlier institutes were premier ones of CSIR and were denoted to dissemination and documentation of S & T information. All the multi-faceted activities have been amalgamated making NISCAIR, an Institute capable of serving the society using modern IT infrastructure in a more effective manner and taking up new ventures in the field of science communication, dissemination and S & T information management systems and services. Broadly the core activity of NISCAIR will be to collect/store, publish and disseminate S & T information through a mix of traditional and modern means, which will benefit different segments of society.

AICTE “All India Council for Technical Education”, Govt. Of India, New Delhi

Official website: www.aicte-india.org

AICTE was set up in Nov. 1945 as a national-level apex advisory body to conduct a survey on the facilities available for technical education and to promote development in the country in a co-ordinated and integrated manner. And to ensure the same, as stipulated in the National Policy of Education (1986), AICTE was vested with- 1. Statutory Authority for Planning, Formulation & Maintenance of norms & standards; 2. Quality Assurance through accreditation; 3. Funding in priority areas, monitoring & Evaluation; 4. Maintaining parity of Certification & Awards; 5. The Management of technical education in the country.

3. MCIT Consortium

Ministry of Communication & Information Technology Consortium

Official Website: www.mcitconsortium.nic.in

Affiliation & Support: MCIT

Actualisation by: DEIT, New Delhi

Consortium Model Type: Centrally funded Consortium

Introduction:

MCIT Library Consortium: Resource Sharing and Networking of Libraries (It is a non-profit making and an association of Libraries, Documentation & Information Centres under of Ministry of Communication & Information Technology) was established in 2005.

Ministry of Communication and Information Technology comprises of three depts.- 1. Dept. Of Information Technology (DIT); Dept. of Telecommunication (DOT) and Dept. of Post (DOP). Each dept. has a number of PSU/Organisation/autonomous bodies. The organisation under these three dept. have their own library documentation centres and information centres to meet the information needs of their officials. These organisations spend huge amount of their budge to purchase/subscribe books/journals etc. Sometimes it has been observed that these libraries purchase common/similar information resources separately. Thus there is a need of common purchasing and sharing of information resources among these organisations for the best utilization of their library budget as well as information resources.

Objectives:

1. To create Digital/Electronic Library;
2. Resource Sharing and networking among the libraries;
3. To provide electronic services to users of libraries;
4. Creating a model for Govt. of India Libraries networking.

Members:

1. Dept. of Information Technology: a. Dept of Inf. Tech.; b. National informatics centre (NIC); c. Centre for Development of Advance Computing; d. Standardisation Testing Quality Certification; e. Software Technology Park of India; f. Society for Applied Microwave Electronics, Engineering And Research; g. DOEACC; h. ERNET; i. Centre for Material for Electronics Technology.

2. Dept. Of Telecommunication: a. CDOT; b. Advanced Telecommunication Training Centre; c. Bharat Sanchar Nigam Ltd.

3. Dept.of Posts: a. Postal staff college (Telecommunication regulatory Authority of India.

e-Resources:

access to 2000+ e-journals and 14000+ e-books to its members,

1. ACM Digital library: containing full text collection of all ACM publications
2. IEEE/IET Library: to provide journals/magazines; Conference publication; Standards; Books & e-books etc.
3. Science Direct: for all the Scientific, technical and medical research available
4. ISO/IEC Standards on ICT: this facility is only for NIC and STQC use

Services:

1. Digital Library of ICT Resources;
2. e-journal subscription & Maintenance;
3. News Clipping Services;
4. e-Granthalaya Software (for library automation)
5. National Union Catalogue

MCIT, New Delhi

www.meity.gov.in

"Ministry of Communication & Information Technology" was an Indian govt. Ministry. It was bifurcated into "Ministry of Communication" and "Ministry of Electronics & Information Technology" in July 2016. It contained three depts.. viz Dept. of Telecommunication, Dept. of Electronics and Information Technology (Deity) and Dept. of Posts".

e-development of India as the engine for transition into a developed nation and an empowered society, is the unique vision of meaty. The mission is to promote e-governance for empowering citizens, promoting the inclusive and sustainable growth of the Electronics. IT and ITeS Industries enhancing India's role in Internet Governance, adopting a multipronged approach that includes development of human resources promoting R & D and Innovation, enhancing efficiency through digital services and ensuring a secure Cyber Space.

4. DRDO E-journal Consortium

DESIDOC, Ministry of Defence, Govt. Of India Official Website: www.dsl.drdo.gov.in/e-journals

Affiliation & Support: Defence Research & Dev. Organisation (DRDO), Ministry of Defence

Actualization by : DESIDOC

Consortium Model Type: Closed Group Consortium

Introduction:

The DRDO E-journal service came into being w.e.f 01 Jan. 2009. DRDO EJLS consortium facilitates sharing of resources and improving access to information. The Resources are shared among DRDO libraries that have common mission, goals and usage and act on those commonalities. DESIDOC is the nodal agency that administers and monitors the access/subscription on behalf of DRDO. To evaluate the DRDO e-journals service, a monitoring commission has been constituted by DRDO Head quarters.

Resources:

It's current subscription (for 2017-19) of e-journals is 06 i.e. (ACM, IEEE, AIAA, Elsevier, Jane's and NPG), and provides access to 568 full text e-journals and 1 bibliographic database.

Members:

48 DRDO laboratories across the nation.

DESIDOC "Defence Science Information And Documentation Centre" is a division of DRDO, located in Delhi. Its main function is the Collection, Processing and Dissemination of relevant technology information for DRDO scientists. It became a self-accounting unit and one of the laboratory of DRDO on 29th. July 1970.

DRDO "Defence Research & development Organisation", Govt. Of India

Official website: www.drdo.gov.in

DRDO works under Dept. of Defence Research and development of Ministry of Defence. It was formed in 1958 and now is a network of 50 labs. It dedicatedly working towards enhancing self-reliance in defence systems and undertake design & develop leading to production of world class weapon system and equipment in accordance with the expressed needs and the qualitative requirements laid down by the three services.

5. DeLCON, DBT's Electronic Library Consortium

Ministry of Science & Technology, Govt. Of India,

Official website: <http://delcon.gov.in/> **Consortium Model Type:** Centrally funded Model

Affiliation & Support: DBT (Dept. Of Biotechnology) Govt. Of India, New Delhi

Official website: www.dbtindia.nic.in **Actualization by:** NBRC, Manesar

Introduction:

DET e-library consortium (DeLCON) is a unique Electronic journal consortium which is operational since Jan. 2009. Currently the consortium includes 16 DBT institutions including ICGB, N.Delhi and 18 North Eastern regional Institutions The Biotechnology industrial research assistance council (BIRAC), N. Delhi is also part of DeLCON. Now the total DeLCON

members are 34. A total of 1171 selective journals and a database (SCOPUS) are covered under DeLCON. These all are accessible by DeLCON consortium members through the DeLCON portal (<http://delcon.gov.in>) others can also view and access abstract of papers as free of cost.

Objectives:

1. To promote better, faster and more cost effective ways of providing Information resources to the officials at the consortia members institutions; 2. To avoid duplication of subscription of journals and e-resources and promote the rational use of funds by consortia members; 3. To ensure continuous subscription of e-resources and availability of these to the scientists working at the consortia members institutions; 4. Better rates and terms for purchase of electronic journals; 5. Availability of a larger spectrum of journals to the DBT institutions with lesser costs.

Scope & Goal of Consortia:

1. To strengthen Library resources and services and co-operate and communicate amongst the members libraries; 2. To strengthen the pooling, sharing and electronically accessing the library resources; 3. To provide access to worldwide literature to users; 4. Efficient interlibrary loan system between the member institutes.

E-resources:

19 leading publishers are accessible through DeLCON with full text e-resources. And the consortium provides access to 682+ journals and bibliographic databases.

Members:

It facilitates scientists, research scholars, students and project assistants of 34 institutions covered under DBT are the primary beneficiaries.

NBRC “National Brain Research Centre”, Govt. Of India

Official website: www.nbrc.ac.in

The centre was registered as an autonomous society on 14th. June 1999, at Manesar, Gurgaon. The Institute was formally dedicated to the nation on Dec. 16, 2003. The mandate of National Brain Research centre (NBRC) is to be a centre of excellence in Brain research with state-of-art facilities, to evolve the centre through a networking approach and generate highly trained human resources.

DBT is the separate wing of ministry of science & Technology, Govt. Of India. It was set up in Feb. 1986, to ensure that the dept. kept abreast of global development in the fields of Biotechnology.

It has vision of attaining new heights in biotechnology research, shaping biotechnology into a premier precision tool of the future for creation of wealth and ensuring social justice-specially for the welfare of the poor.

The dept. had focus on- (a) Developing human resources; (b) Creation of appropriate infrastructure; (c) Research and development; (d) Creating a regulatory framework.

6. CeRA (Consortium for e-resources in Agriculture)

CeRA, Directorate of Knowledge Management in Agriculture, Indian Council of Agricultural Research,
New Delhi

Official Website: <http://cera.iari.res.in> **Consortium Model Type:** Centrally Funded Consortium

Affiliation & Support: ICAR (World Bank)

www.icar.org.in

Actualization by : IARI, New Delhi

Introduction:

ICAR is having network connectivity across Institutions and state agriculture Universities selected journals could be made available over the network for the use of scientific communication. Accordingly the consortium for e-resources in Agriculture (CeRA) was established in Nov. 2007 for facilitating accessibility in scientific journals to all researchers/teachers in the national agriculture resources system by providing access to information specially access to journals online which is critical for having excellence in research and teaching.

Objectives:

1. To upscale the existing Research & Development Information resources base of ICAR institutions/Universities comparable to World's leading institutions/organisations; 2. To subscribe e-journals and create e-access culture among scientists/teachers in ICAR Institutions/Agricultural Universities; 3. To assess the impact of CeRA on the level of research publication measured through NAAS ID and Science citation index.

Outcomes:

1. Online accessibility of all important journals related to agriculture and Biotechnology to researchers and students of the consortium members; 2. Quick access to World Research and Development information as available Worldwide; 3. Permanent archive of the subscribed e-databases; 4. Improvement in quality of scientific publications & teaching and research guidance.

Members:

It has total 142 member institutions like-4 deemed universities, ICAR Headquarters and KABI, &45 Institutions', 6 National Bureaux, 20 direct/Project direct, 13 national research centres, 41 universities.

Resources:

15 publications which comprises 3000 + scholarly journals and 3 bibliographic databases.

ICAR "Indian Council of Agricultural Research", Ministry of Agriculture and Farmers Welfare, Govt. Of India, New Delhi

ICAR is an autonomous organisation under the Dept. of Agricultural Research & Education (DARE), Ministry of Agriculture and Farmers Welfare, Govt. Of India, formerly known as Imperial Council of Agricultural Research, it was established on 16th July 1929, as a registered society under the Societies Registration Act, 1860. The Council is the apex body for co-ordinating, guiding and managing research and education in Agriculture including Horticulture, Fisheries and Animal Science in the entire country. With 101 ICAR institutions and 71 Agricultural Universities spread across the country, this is one of the largest national agricultural systems in the world.

IARI "Indian Agricultural Research Institute", under ICAR, New Delhi.

Official website: www.iari.res.in

It is popularly known as Pusa Institute, began in 1905 at Pusa (Bihar). It is an autonomous organisation under the Dept. of Agricultural Research and Education.

7. ERMED Consortium Electronic Resources in Medicine Consortium

Ministry of Health & Family Welfare, Govt. Of India Official Website: www.armed.in/

Consortium Model Type: Open Consortium

Affiliation & Support: Ministry of Health & Family Welfare

Actualization by : National Medical library

Introduction:

National Medical Library's Electronic Resources in Medicine (ERMED) Consortium is an initiative taken by DGHS & MOHFW to develop nationwide electronic information resources in the field of medicine for delivering effective health care. It was established in the year 2008. 70 states and centrally funded govt. Institutions including all AIIMS are selected as its members. The members are divided into level-I and level-II on the basis of number of end-users in different institutions. There is no membership fee charged from members and the MOHFW has provided funds required for the purchase of electronic journals under the NML-ERMED consortium project. The Consortium is co-ordinated through its Head quarter set up at the NML. 242 high quality on-line e-journals are presently purchased from 5 leading publishers- British Medical Journals publications ; Cambridge University Press, Lippincott W. & W.; Oxford University Press; John Wiley.

Objectives:

1. Round the clock instant online access to multiple users, 2. Access to resources beyond the physical space and time of the library, 3. Ultimate aim of any e-journal consortium to make online journal literature available to medical scholars working in the country through electronic media, 4. Facilitate better management of information resources in electronic environment, 5. Hassles of archiving print resources and their management is reduced, 6. Dissemination of e-journals literature is more fast, more economical and more efficient.

The library was initially conceived as departmental library having a small collection of books for use of officers of the erstwhile Directorate General of Indian Medical services (DGIMS).

The DGIMS was later merged with the office of the Public Health Commissioner in India in 1947 to form the Directorate General of Health Services (DGHS) and the library became DGHS library realizing the need for a central library to support academic research and clinical work of biomedical professionals in the country, the DGHS library was developed gradually and declared as central medical library in 1961 and as the National Medical library on 1st April 1966.

Members:

Over 100 medical colleges and related institutes, 29 states and union territories across the country, its members includes ICMR, DGHS, AIIMS, NTR Health University and so on.

Collection:

247 medical journals from 5 leading world class publishers.

Ministry of Health & Family Welfare, Govt. Of India

Official Website: <http://www.mohfw.nic.in>

It is an Indian Govt. Ministry charged with health policy in India. It is also responsible for all govt. Programs relating to family planning in India. It was officially formed in the year 1976. It is comprised of mainly two depts.. i.e. dept. Of AIDS Control and Dept. Of Health research.

8. DAE Consortium

Dept. of Atomic Energy Consortium, UGC-DAE Consortium of Scientific Resources

Official Website: www.csr.res.in

Consortium Model Type: Closed Group Consortium

Introduction:

The Department of Atomic Energy (DAE) Consortium established in 2003, to promote interaction amongst the scientists working in the Research Centres of Dept. of Atomic Energy and the faculty from the University and other institutions of higher learning, and to enable young students to work on programmes of national importance under the joint guidance of the faculty from university and the scientists of DAE so as to nurture an organic linkage between the university system and research centres of DAE, the UGC and Atomic Energy of new research facilities. Accordingly the UGC created an inter-university consortium, with its Headquarter at Indore for the utilization of the facilities established by the Dept. of Atomic Energy. The inter-university consortium has over the years taken several initiatives to foster the interaction between the University systems and the DAE institute, as per the present MoU, collaboration between the Dept. of Atomic Energy and UGC will be expanded to cover the disciplines of physical science, chemical science, life science and engineering science. DAE will continue to make the major research facilities accessible to the researchers from the university and institution of higher learning through the consortium. It will also make available the infrastructure and accessorial facilities such as laboratories, library, workshops etc. necessary to carry on the research work.

Collection:

12 leading publishers- online journals- related to science, which comprises 2000+ peer reviewed e-journals

Members:

4 major consortium centres are Indore (MP), Mumbai (M), Kolkatta (WB) & Kalpakkam (TN) provides specialized training and advanced characterization facilities for university researchers and also making facilities of DAE accessible to them. 36 member institutions including BARC, TIFR and Sameer are taking benefits of the consortium.

DAE “Dept. Of Atomic Energy”, Govt. Of India

Official website: www.dae.nic.in

DAE came into being on Aug. 03, 1954 under the direct charge of Prime Minister through Presidential order. DAE has been engaged in the development of nuclear power technology, applications of radiation technology in the fields of agricultural medicine, industry and basic research. DAE comprises five research centres, three industrial organisation, five public sector undertakings and three service organisations. It also supports eight institutions of International repute engaged in research in basic sciences, Astronomy, astrophysics, Cancer, Research and Education.

FINDINGS:

1. All the major Research and Educational Institutes and Institutes of higher learning in India are well co-ordinated and sharing their respective resources mutually;
2. Digital Library Consortia are contributing on International level, but with moderate pace;
3. The learners, researchers, scientists, industrialists getting benefits the most;
4. Lack of financial support and co-ordination among the member library is providing much friction in the development;
5. Being a developing country with huge population, the pace of transition is slow;
6. There is great need of awareness programs among the members is strongly felt;
7. UGC & CSIR are the leading agencies in the country for Technical & Financial support for the programs.

SUGGESTIONS:

1. There is a great necessity of constituting new consortia and networks at the root level i.e. Metropolitan Area Networks to District level or city wise co-ordination and collaboration;
2. There is a great need of International tie-ups for refinement or up gradation of the existing consortia and networks for productive results;
3. It is required to expand the scope and coverage of resource sharing than before;
4. At the root level traditional as well as Hybrid Library have greater need to be upgraded;
5. It is strongly felt that all the mentioned Library Networks; Digital Libraries & Digital Library Consortia should completely adopt the International Digital Library Protocols and Standards for the fruitful results-
 - a. TCP/IP, http and FTP are being used for Digital Communication: ;
 - b. MARC, Dublin Core, BIB-I, TEI, EAD, METS and MoDs for Bibliographic Standards;
 - c. ISO 2709/Z39.2 for Record Structure;
 - d. Unicode and ACII for Encoding Standards;
 - e. Z39.50, SRW/SRU, SOAP, REST, OAI-PMH and Open URL for Information Retrieval Standards;
 - f. Unstructured text formats-ASCII & structures text formats-SGML, XML, ODA, HTML and TeX for Formats and Media types for Digital Library & Preservation;
 - g. Page Description Language (PDL)-Adobe's PostScript and PDF;
 - h. TIFF, Image PDF, JPEG etc. for Page Image Formats;
 - i. PREMIS and OAIIS for Preservation Standards;
 - j. Under the treaties of World Intellectual Property Organisation (WIPO) the Digital Millennium Copy Right Act (DMCA) 1998 is being used;
6. It is utmost necessity to constitute a centralised govt. Agency for standardization and accreditation at the national level.

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