CHAPTER - 3

INDIAN SCENARIO CONSORTIA

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CHAPTER - 3

CONSORTIA : INDIAN SCENARIO

3.1 BACKGROUND

"Coming together is a beginning, staying together leads towards progress and working together results in success".

Over the years the escalating prices of library resources particularly scholarly journals and shrinking budget of libraries have brought down the buying capacity of libraries. The situation of Indian libraries is compounded due to foreign exchange rate fluctuations resultant in steep decline in their resources causing a very wide gap between what is available and, what is needed and affordable. The major research and development organizations like CSIR, ISRO, DRDO, DAE, ICAR, ICMR, DBT etc spend annually a huge amount around Rs.150 crores towards library acquisitions. In spite of this, they are not in a position to maintain the subscription of even core journals. The high budget libraries attached to Indian Institute of Science, BARC, IITs are forced to get themselves satisfied with the maximum of 2000 titles as against minimum of 8000 in similar US organizations. There are over 300 Indian universities and instances of even the well-established ones canceling substantially or completely their foreign journal subscriptions for reasons of affordability has become a common phenomenon. Library co-operatives and consortia based purchases evolved to address this challenge (Goudar and Sangam 2004). However none of cooperative ventures were successful in India due to lack of understanding between libraries and many a times even among institutions under same apex body. Libraries also practiced resource sharing as a means to counter the crisis caused by these problems.
Traditional models of document delivery like inter-library lending and inter-library photocopying services are widely practiced world over and so is the case in India, but with many operational and other problems. Resource-sharing initiatives in India during pre-electronic journal period and pre-internet era remained largely academic.

3.2 RESOURCE SHARING

The erstwhile Indian National Scientific Documentation Center (INSDOC), which is now merged with the newly formed NISCAIR (National Institute for Science Communication and Information Retrieval), was set up in 1960s as a national agency to primarily to serve as document delivery center and promote resource sharing among libraries in line with the then BLLD (British Library Lending Division). The NUCCSI (National Union Catalogue of Current Serials in India) compiled by INSDOC has been a good source in this direction. However it lost its importance due to problems in updating it and also now in the context of availability of e-journals. Both DESIDOC (Defense Science Information and Documentation Centre) and NASDOC (National Social Science Documentation Centre) have been trying to act as nodal agencies to encourage and facilitate resource sharing among the respective sectors. The city-based networks like ADINET, BONET, CALIBNET, DELNET, MYLIBNET and PUNENET are few developments in Library co-operation. Among these the DELNET is more active and provides access to good number of databases and union catalogues of both books and journals of good number of libraries. The NISSAT (National Information System for Science and Technology) had set up Sectoral Information Centres (SIC) covering the areas like Drugs, Food, Leather and Machine Tools both to develop indigenous bibliographic databases and serve as document delivery centers (Goudar 2001, 2002).
DELNET is a good example of digital library initiatives in India, actively engaged in the compilation of various union catalogues of the resources available in member libraries. It has already created the Union Catalogue of Books, the Union List of Current Periodicals, the Union Catalogue of Periodicals, the CD-ROM Database, the Database of Indian Specialists, the Database of Periodical Articles, the Union List of Video Recordings, the Urdu Manuscripts Database, the Database of Theses and Dissertations, the DEVINSA Database, sample databases of language publications using GIST technology etc. All the DELNET databases have been resident on DELSIS, an in-house software developed on BASIS Plus, an RDBMS, and a UNION holding database of books available in participating libraries that is easily traceable from the web page of DELNET. These databases can be searched online by participating libraries (Hiremath 2001).

The Information and Library Network (INFLIBNET), an autonomous unit of UGC set up for acting as an agency to promote and coordinate development, modernization and resource-sharing activities in Indian Universities, initiated a project of promoting resource sharing among university libraries. To effectively promote the practice of document delivery among libraries, INFLIBNET identified five resource libraries, in different parts of the country, which had a reasonably good base of journal literature. A printed union catalog of journal holdings of these five libraries has been brought out by INFLIBNET. The National Medical Library (NML) and several national institutes like the All Indian Institute of Medical Sciences (AIIMS) and National Institute of Mental Health & Neuro Sciences (NIMHANS) are supposed to serve among medical and paramedical institutions document delivery centers and promote resource sharing. Although document delivery service is given by few institutes it is not well organized. Although NML (Neuro Medical Library) spends over Rs. 8 crores in subscribing 1500+ journals, there seems to be serious lacuna in its working as a national document delivery center for Health Sector due to
various reasons. An estimate suggests that the annual document delivery exchange across all the libraries in the country is not more than 50,000 a year. Evidently, resource sharing as a practice in India has not caught up as much as it should have, although this was always the best and the most needed model for Indian situation. (Sathyanarayana, et. al., 2004, Urs 2000).

These circumstances naturally force Indian universities and R&D organizations to form the consortia for accessing more and more e-journals. Over the last several years, much of the periodical literature has become accessible electronically over the Internet. At the same time computers, reasonable communication bandwidth and access to the Internet have become available to all well known institutes like IITs, IIMs, some university departments and a good number of R and D set ups. Many libraries in India are not geared up for accessing e-Journals due to various reasons including user ignorance, poor infrastructure and lack of funds. While there is an urgent need for changing the mindset of librarians, users and the administrators for subscribing to e-journals in India, a satisfying note that few forward looking libraries have made a modest beginning in forming consortia.

### 3.3 CONSORTIA INITIATIVES - AN OVER VIEW

Consortia for shared access to electronic databases have been talked about since late 90s. Consortium for Material Science and Aerospace Collection is the first known formal consortium initiative led by the National Aerospace Laboratory (NAL) in 1998 for 14 bibliographic databases of Cambridge Scientific Abstracts. This consortium could not continue beyond second year due to the lack of management commitment by member institutes, inadequacy of Internet access infrastructure and mistaken perception that consortium is only a bargain for discounted buying. The communication gap between managements and librarians was
one of the serious bottle neck. Distributed invoicing were not honored as there were no budgetary allocation for resources through consortia in some institutes. The first and successful consortia was set up by Tata Institute of Fundamental Research (TIFR) in 2000, which used the consortia model offered by Springer for multi-site licensing and cross sharing of content among all the libraries falling under its affiliation. The reason for success was one central authority in command to negotiate a model on behalf of all. Concerted efforts by a few leading libraries, various publishers and vendors sustained the interests and momentum, leading to a few, open and non-formal consortia.

The Forum for Resource Sharing in Astronomy & Astrophysics (FORSA) is a very fine example of consortia initiated by librarians in a small scale, but successful, operational and gives access to selective titles of 4 publishers. The ICICI Knowledge Park at Hyderabad developed jointly by Andhra Pradesh Government, ICICI and Department of Scientific and Industrial Research (DSIR) has set up a unique facility—the Virtual Information Centre (VIC), which links to the digital resources of its members. It provides seamless access to a number of external databases. This VIC had set up a customised e-journal consortium called JCCC@VIC using J-Gate based content technology platform for providing access TOC of 500+ journals and full text articles with an automatic photocopy request generation facility. ICMR has initiated a resource-sharing consortium among all its institutions for both print and e-subscriptions, using JCCC. Four of its institutes are being funded for accessing e-journals using aggregator's models (Sathyanarayana, et. al., 2004, Goudar 2003).

The Council of Scientific and Industrial Research (CSIR) can take the credit being the first major and formal consortium at national level, presently giving access to more than 2200 titles of 11 publishers to its chain of 38 laboratories and other supporting departments. Encouraged by CSIR model, the Department of Automatic Energy (DAE) formed a
consortium and signed up with Science Direct in 2002. However this consortium has not taken off beyond one publisher. The Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium is well planned and thoughtfully implemented national and multi-sector consortium both in terms of funding and management commitment. Supported by Ministry Human Resource Development (MHRD) started functioning since 2003 and gives access to over 5,000 e-journals from ten primary publishers and a few aggregators, and a few databases for the benefit of 38 Institutes initially (IIT's, IISc, REC's, IIM's) and services have been extended to another 120 institutions on membership basis. The Information and Library Network (INFLIBNET), an autonomous Inter-University Centre (IUC) of the University Grants Commission (UGC) has set up UGC-INFONET. As a part of its activities the INFLIBNET is working on an ambitious initiative to provide access to good number of journals both from publishers and aggregators as well to some bibliographic databases for the benefit of 311 universities and over 14000 colleges affiliated to different universities. As of now 100 universities (50 universities in the first phase since January 2004) have been benefited with access to 3233 journals from the publishers, another 679 titles through aggregators, 9 databases and national licensing to one reference tool. The Health Sciences Library and Information Network (HELINET) Consortia, an initiative of Rajiv Gandhi University of Health Sciences (RGUHS) has an ambitious plan of giving access to thousands of biomedical e-journals, few bibliographic databases to more than 500 Health Science institutes including medical, dental, nursing, pharmacy, etc in Karnataka. Initially supported by WHO for ICT infrastructure, HELINET has been providing access to more than 650 primary journals and JCCC to all medical and few other colleges through an aggregator and few publishers. It has been made mandatory for its constituent institutes to contribute for e-resources depending upon number of students and discipline for the last three years or so (Urs 2005). One of the very well
conceived and implemented consortia in private sector by GE Global Research (GEITC) (Byrappa 2005). The Whitney Knowledge Centre of GE at Bangalore lead its 25 world over centers for giving access to hundreds of journals by well known publisher, bibliographic databases, patents and e-books. An MOU has been signed among 16 participating libraries belonging to various institutions coming under the umbrella of Ministry of Communications and Information Technology for many cooperative activities including Consortia of e-journals. C-DOT, New Delhi has been entrusted the responsibility of negotiating with the publishers and look in to pricing policy, accessibility, licensing and archival policy to be adopted.

There have been some efforts by individual institutions with their own funds or additionally with the help of some or the other grants. The NALANDA (Network of Automated Library AND Archives) an initiative of National Institute of Technology, Calicut provides access to many institutions covering a vast number publications covered by Science Direct, IEL Online, ACM Digital Library, ASM Online, ASCE Online, ASTP Online, Springer Link and J-Gate. Some of the individual institutions like TIFR (Bombay), NIMHANS (Bangalore) and University of Hyderabad too have caught up this race of providing access to a good number of electronic sources to their clients. Many initiatives cover access to a number of sources at bibliographic database level (Raina and Sreekumar 2003, Pathak and Deshpande 2004).

3.4 MAJOR CONSORTIA INITIATIVES

3.4.1 FORSA Libraries Consortia

The Forum for Resource Sharing in Astronomy (FORSA) came into existence in the year 1982, to aid in the sharing the resources available in astronomy libraries in the country. Members of FORSA are the Indian Institute of Astrophysics (IIA), the Inter-University Centre for Astronomy &
Astrophysics (IUCAA), the National Centre for Radio Astrophysics (NCRA), the Physical Research Laboratory (PRL), Raman Research Institute (RRI), Tata Institute of Fundamental Research (TIFR), Nizamiah Observatory (NO), HRI, Bose Institute., SNBNCBS, SINP, ARIES, Osmania University Department of Astronomy.and State Observatory, Nainital (Patil 2002, Bawdekar 2003).

FORSA is an open model Consortium, wherein institutes are affiliated to different government departments. This is a model where professionals willingly come forward, participate and support consortia activities. It is a voluntary consortium with shared goals and is governed by the rules emerging out of discussion and consensus among participants. With increase in prices of journals and dwindling library budgets, the group thought over to come closer and form consortia so as to enhance access to more journals, share costs of subscription to costly journals and purchase of e-books in negotiation with publishers. FORSA group has formed four consortia purchases, keeping in view the interests of the Group as mentioned below (Patil 2004, Panchakshari 2003, Goudar 2004):

**Nature On-line**

For this title, on-line subscription is not clubbed with print edition and both are to be subscribed separately. Majority of the institutes were subscribing only airmail subscription keeping off on-line edition, as it was too costly on individual level. FORSA could negotiate and share the affordable cost and 9 institutes are participating in this consortium since 2002. Negotiations are done on year-to-year basis and current renewal is the third year of subscription. This is the first Indian consortium for Nature On-line. Normal terms and conditions are observed while negotiating for subscription renewal each year. Nine members are participating in this activity, viz. RRI, IIA, IUCAA, NCRA, PRL, TIFR, JNCASR and Bose Inst. and ARIES.
The terms and conditions are: One of the Members will sign the license agreement on behalf of FORSA; Access to back files from 1996+ is provided; Publishers will provide usage statistics on regular basis; In the event of discontinuance of the consortium, perpetual access to subscribed period is provided.

*Indian Astrophysics Consortium for Kluwer and Springer Journals*

During 2002, FORSA signed agreement through a vendor for accessing astronomy and astrophysics journals of Kluwer, as publishers did not want to entertain subscription through a group. The terms and conditions negotiated were for the period of three years. The Kluwer was merged with Springer during 2005 and many of the members were also subscribing to some physics/astronomy journals of Springer and renewal was done for both with fresh negotiations for another term of three years. Five members have joined this group, viz. RRI, IIA, PRL, ARIES and SNBNCBS.

The terms and conditions are: Cross e-access fee is 10% of the total of the individual payment for subscribed journals; The cap price is 6% for the period of three years; Perpetual access is provided for the subscribed period in case the subscription is stopped under the consortium; The back file access provided is from 1997+; the subscribed journals of 2005 will continue for the period of three years without any cancellation; Additional PW/ID to be provided if any of the consortium members desires without any additional cost; Each participant will sign the license agreement, etc.

*Open Consortium*

Under FORSA Open consortium, they have subscribed to *Monthly Notices of the Royal Astronomical Society (MNRAS)*.
Lecture Notes in Physics with provision to access back volumes up to 1999. Many of FORSA members have subscribed to this publication. The prices are negotiated on year to year basis.

Scientific American Archive

Under FORSA consortium, during 2005, they have subscribed to Scientific American Archive online with back files access up to 1993 with provision to access current issues as well. There are seven members participating in it, viz. RRI, IIA, IUCAA, NCRA, PRL, NCBS and JNCASR.

Terms and conditions: The price charged for 2005 will hold good for 2006; Access to current issue and archival back to 1993; No perpetual access is provided in the event of discontinuance of the consortium; Access is through IP authentication; Usage statistics will be provided to each participant of the consortium, etc.

Journals covered under the Indian Astrophysics Consortium Participants: RRI, IIA, PRL, ARIES and SNBNCBS.

Astronomy and Astrophysics Review
Astrophysics
Astrophysics and Space Science
Celestial Mechanics and Dynamical Astronomy
Earth, Moon, and Planets
European Physical Journal A
European Physical Journal A (Historical Archive)
European Physical Journal C - Particles and Fields
European Physical Journal C - Particles and Fields (Historical Archive)
Experimental Astronomy
General Relativity and Gravitation
International Journal of Infrared and Millimeter Waves
FORSA initiative clearly indicates that it is a win–win situation for both the members and the publisher in terms of decreased cost for increased access e-journals for members and an assured business to publishers for the period of agreement. These consortium is in existence since 3-4 years and it is likely that the initiative will sustain for the years to come due mainly to voluntary participation, that too being enterprising librarians’ initiative.

FORSA is looking forward to strike agreements with other publishers like, Elsevier, Taylor and Francis, World Scientific Publications and AIP on the one side and exploring possibility of joining existing consortia keeping in view larger interest of FORSA members.

3.4.2 CSIR E-Journals Consortia (www.niscair.res.in)

The Council of Scientific and Industrial Research (CSIR), is a Society registered under the Societies Registration Act XXI of 1860 is the one of the largest government funded R & D organization in India with a chain of 38 laboratories spread across the country carrying out R&D work in the areas of Engineering, Biological, Chemical, Physical, Environmental and Information Sciences. It has 5,000 active researchers (3,000 of them are PhDs/M Tech) who are actively supported by 11,000 Technical Officers and 5,000 supporting staff. CSIR has been responsible for pioneering research in all the aspects of scientific and industrial research. Put together these laboratories spend about Rs.25 crores on print journals. More than US $ 1.3 million is spent on Elsevier titles alone. Among CSIR
labs the amount of decline of journals information base has been over 60% in last 10 year's period (Chand 2005) as given in Table 1.

Table 1: Declining Journal Subscriptions in CSIR LICs

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>No. Journals Subscription</th>
<th>Unique Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1993</td>
<td>8,384</td>
<td>5,126</td>
</tr>
<tr>
<td>2</td>
<td>2000</td>
<td>3,356</td>
<td>2,500</td>
</tr>
<tr>
<td>3</td>
<td>2005</td>
<td>2,717</td>
<td>1,732</td>
</tr>
</tbody>
</table>

This lead some enterprising CSIR librarians to move the formation of Consortia for e-resources.

3.4.2.1 Earlier Attempts

The first ever consortia concept in the country was conceived at a meeting of Heads of CSIR Libraries & Information Centres held at NAL, Bangalore during 1993 itself. The purpose was to create exhaustive bibliographic databases covering major five disciplines of S & T using the rich journal resources of all CSIR-LICs. NAL took the initiative during 1998 itself to form a Consortia ‘CoMSAC’ (Consortia for Materials Science and Aerospace Collections) for giving access to 14 bibliographical databases of Cambridge Scientific Abstracts (CSA) covering the subjects Aerospace and Material Sciences. While more than 50 institutions working in the area of Aerospace and Materials Science affiliated to different apex bodies like CSIR, DRDO, ISRO, IITs were invited to join this consortia, only 15 Heads of institutes responded positively, but only 3 institutes paid their share of the total expenditure against distributed invoicing by the
concerned vendor due to various reasons mentioned earlier resulting in aborting of this initiative during the second year itself. Again in 2000 the idea of setting up CSIR Consortia was discussed in an informal meeting of about 20 librarians of CSIR LICs at NAL. However this got good momentum during the fifth meeting of Heads of Libraries and Information Centers (HOLIC) at RRL, Thiruvananthapuram in February 2001. The theme of the meeting was on ‘Sharing in a New Millennium’ all 40 participants from the 38 labs strongly supported the idea pooling, sharing and accessing the CSIR resources. Without waiting for CSIR Consortia to come up some CSIR labs including NCL, NAL, CDRI, RRLT, NIO and IMTECH went ahead of providing access to e-journal of Elsevier since Sept 2000 itself. NAL developed a portal for e-journals covering areas of its interest both freely available on the net and those available free with print orders. Although the laboratories were going to be ultimate beneficiaries of the Consortium access, it was apprehended that resource mobilization from all the laboratories may not come through on time due to already shrinking library budgets. Since the success of this multi-laboratory consortia programme depends upon participation on a wider scale may not be feasible, it was felt to initiate the consortium with the support of CSIR headquarter. Later a group of heads of 6 CSIR LICs met DG-CSIR and submitted a proposal to set up Consortia. The same group met at NCL and firmed up its plans to launch the consortia with three major publishers—Elsevier (Science Direct), Kluwer, and Springer (Goudar and Narayana 2003 & 2004).

3.4.2.2 Launching

The formation of NISCAIR by merging of erstwhile INSDOC and NISCOM had a significant effect on CSIR Consortia initiative. DG-CSIR set up a study group in April 2001 to collect and compile information on the journals presently subscribed to by the CSIR labs, including CSIR HQs and
also to study the feasibility and economic viability of CSIR labs subscribing to identifying journals on-line on a consortium basis and devise a system for the management of the consortium. The study group submitted its report to CSIR in October 2001. The recommendations were accepted by CSIR on 19-12-2001 and it was decided to set up the CSIR E-Journals Consortium. The Information Dissemination and Products was one of the Sectoral group of S & T of Tenth Five Year Plan, which proposed a networked project on e-Journals consortium. The Budget layout for the period starting from 2002 till the end of 2007 was estimated around 11.79 crores (CSIR 2001). The NISCAIR was identified as the CSIR Consortia Coordinator and a Monitoring/Steering Committee was constituted with NISCAIR as the focal point. Further NISCAIR set up a Task Force Team comprising of some Nodal Officers from some of the major laboratories. Although it was felt that CSIR should go for both full text journals of well known commercial and society publishers and select bibliographic databases depending upon the R & D activities of CSIR laboratories, the consortia coordinator NISCAIR initiated efforts to provide access to 4,500 journals of well known publishers in the first stage.

Following the formation of the Consortium, CSIR constituted a negotiation committee which met on 9th and 10th January 2002 at Pune for negotiations with M/s Elsevier and Springer Kluwer. The committee recommended entering into agreement with M/s Elsevier from January 2002. However, the finalization of terms and conditions of agreement with M/s Elsevier took about six months time and finally as a first step CSIR entered into agreement on 10th June 2002. After having experience of online access of about two years, CSIR e-journals consortium initiated action to finalize more e-journals publishers in order to achieve its target to access about 4500 journals. In all, 60 odd publishers were identified as relevant to CSIR. Having identified the publishers, the Consortium spent about 8-9 months and narrowed down 14 most relevant publishers
and prioritized these publishers. During the period a number of meetings of various negotiation committees, meetings of Nodal Officers of all CSIR labs, pre-bid meeting with publishers, etc., were carried out. After this long exercise, and considering the available budgetary allocation, CSIR entered into agreement with 11 publishers to access about 3500 international journals across the labs to feed its S&T staff with world's latest S&T information for their day to day R&D activities (NAL, et. al., 2000 – 2005).

3.4.2.3 Resources Selection

Prioritisation of publishers for consortium subscription to E-journals was done based on data collected from the laboratories. CSIR identified 15 commercial and 30 Society publishers in the first phase for e-journals subscription. As on this reporting day has given access to 3300+ e-journals of the following 11 publishers.

- Priority I – 11 Publishers
- Priority II – 24 Publishers
- Priority III – 7 Publishers

3.4.2.4 Implementation

First Phase

As a first step, CSIR entered into contract with M/s. Elsevier science in June 2002 to enable access to all its laboratories access to 1800 e-journals. Initially for the first year Elsevier also made available free the 170+ Academic journals free along with its own titles. Since the titles
ScienceDirect covered most of the areas of CSIR's research interest, the service became very popular.

Second Phase

While all titles of Elsevier were made available to all labs in its first phase the CSIR had to adopt the base model mentioned below while adding titles of another ten publishers.

3.4.2.5 Broad Based Model

The R & D activities of CSIR are broad based and interdisciplinary in nature. CSIR need to go for a good number both commercial and society publishers. As it stands there is no universally accepted pricing, licensing and access models. In view of this following options were chosen (Narayana and Goudar 2004):

- All the Journals to all the labs;
- All the Journals to select labs;
- Select journals to all the labs; and
- Select Journals to Select labs.

Effective from 2005 CSIR has signed agreements with 11 publishers as detailed in Tables 2 & 3.
Table 2: Access to E-Journals of 11 Publishers

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of Publisher</th>
<th>No. of Subscribing labs</th>
<th>No of labs for e-access</th>
<th>No. of Jrls for access</th>
<th>No. of subscribed journals</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Elsevier Science</td>
<td>38</td>
<td>All</td>
<td>1500</td>
<td>399</td>
<td>All Jrls to all labs</td>
</tr>
<tr>
<td>2</td>
<td>Springer</td>
<td>32</td>
<td>All</td>
<td>800</td>
<td>120</td>
<td>All Jrls to all labs</td>
</tr>
<tr>
<td>3</td>
<td>American Institute of Physics</td>
<td>8</td>
<td>9</td>
<td>16</td>
<td>17</td>
<td>All Jrls to select labs *</td>
</tr>
<tr>
<td>4</td>
<td>Blackwell</td>
<td>23</td>
<td>23</td>
<td>355</td>
<td>55</td>
<td>All Jrls to select labs *</td>
</tr>
<tr>
<td>5</td>
<td>American Society Of Civil Engineering</td>
<td>8</td>
<td>10</td>
<td>30</td>
<td>20</td>
<td>All Jrls to select labs *</td>
</tr>
<tr>
<td>6</td>
<td>American Chemical Society</td>
<td>24</td>
<td>All</td>
<td>41</td>
<td>31</td>
<td>All Jrls to all labs</td>
</tr>
<tr>
<td>7</td>
<td>John Wiley</td>
<td>28</td>
<td>All</td>
<td>374</td>
<td>84</td>
<td>All Jrls to all labs</td>
</tr>
<tr>
<td>8</td>
<td>Cambridge University Press</td>
<td>11</td>
<td>11</td>
<td>74</td>
<td>18</td>
<td>All Jrls to select labs*</td>
</tr>
<tr>
<td>9</td>
<td>Oxford University Press</td>
<td>15</td>
<td>All</td>
<td>69</td>
<td>28</td>
<td>All Jrls to all labs</td>
</tr>
<tr>
<td>10</td>
<td>American Society Of Mechanical Engineering</td>
<td>6</td>
<td>7</td>
<td>20</td>
<td>19</td>
<td>All Jrls to select labs*</td>
</tr>
<tr>
<td>11</td>
<td>Royal Society of Chemistry</td>
<td>18</td>
<td>All</td>
<td>37</td>
<td>22</td>
<td>All Jrls to all labs</td>
</tr>
<tr>
<td></td>
<td><strong>Total 11</strong></td>
<td></td>
<td><strong>3316</strong></td>
<td><strong>813</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3: All Journals to Select Laboratories

<table>
<thead>
<tr>
<th>Priority No</th>
<th>Name of Publisher</th>
<th>No. of Subscribing labs</th>
<th>Name of Subscribing labs</th>
<th>No of labs for Access</th>
<th>No. of Jrls for access</th>
<th>No. of subscribed journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>American Institute of Physics</td>
<td>8</td>
<td>CEERI, CSIO, ICT, NAL, NCL, NISCAIR, NPL, RRL-BHU</td>
<td>8</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>Blackwell</td>
<td>23</td>
<td>CCMB, CDRI, CIMAP, CLRI, CSIO, CSIR-HQ, CSMCRI, IIBT, IICB, IICT, IMTECH, ITRC, NBRI, NCL, NGRI, NISTADS, NML, NPL, RRL-BHOPAL, RRL-JAMMU, RRL-JORHAT</td>
<td>23</td>
<td>355</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>American Society Of Civil Engineering</td>
<td>8</td>
<td>CBRI, CMERI, CRRI, IIBT, NAL, NEERI, NIO, SERC.</td>
<td>8</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>Cambridge University Press</td>
<td>11</td>
<td>CCMB, CDRI, CIMAP, IIBT, IMTECH, NAL, NBRI, NGRI, NIO, NISTADS, RRL-JORHAT.</td>
<td>11</td>
<td>74</td>
<td>18</td>
</tr>
<tr>
<td>12</td>
<td>American Society Of Mechanical Engineering</td>
<td>6</td>
<td>CMERI, IICT, IIP, NAL, RRL-BHU, SERC.</td>
<td>6</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>495</strong></td>
<td><strong>129</strong></td>
<td></td>
</tr>
</tbody>
</table>
3.4.2.6 Terms and Conditions

The Consortia coordinator NISCAIR in consultation with Participating laboratories, Task Forces finalized various terms and conditions for the purpose of signing MOU with various publishers, an outline of which is given below (Narayana and Goudar 204).

Access

- IP enabled access to e-journals in all laboratories
- Access through login and password wherever IP enabling not possible
- Facilities to search, browse, view and download the articles of interest
- Distribution among CSIR labs/institutes/centres/units etc., shall be allowed.

Usage and Usage Statistics

- Unlimited access, view, search, browse, download, print and users.
- Publisher/licensor and/or providers make available usage data
  - Monthly statistics
  - Journal-wise, IP address,
  - Session/downloads of abstracts/full texts, etc
  - Laboratory-wise to individual labs.
  - Consolidated with lab wise breakup to Consortia host
Tenure

- Multiple-year agreements: 2004-06 or 2005-07 as the case may be
- Price cap as per agreement
- During contract tenure and thereafter too publisher/licensor and/or provider shall be liable for any kind of loss, claim etc., caused by any third party
- Automatic renewed for successive one year unless either party gives minimum notice of one month

Rights to Back-issues

- Access from the start of the year, i.e., 1st January to the relevant contents irrespective of date of agreement
- Access to minimum five years base (current plus four years back)
- The titles added during the contract period at no additional charge.

Archival Policy

- For the period of agreement on the prevalent formats on CD-ROM, DVD, etc
- The retrieval software by publisher/provider for network access
- Higher versions of retrieval and other technology at no extra cost

Training

- 'Train-the-Trainer' sessions for library and information science professionals by publishers
• Mutually agreed multiple locations, two days minimum

• No extra change

• Five print copies of course ware + one soft copy for each location shall be provided.

3.2.4.7 Usage Statistics

Usage of E Journals of Elsevier Science

The monitoring and analysis of the usage of the facility was of immense importance not only to evaluate the usage of Elsevier titles, but also to decide the inclusion of other publishers in the consortium. A detailed study and analysis of laboratory wise usage helped to understand preferences and reading habits of scientists, suitability and adequacy of infrastructure available for accessing e-journals, to know how effectively the consortia coordinator has implemented the proposal, to examine the effectiveness tools and techniques provided by publishers and role of library professionals in marketing the e-journals concept at institutional level.

Downloads of Articles from ScienceDirect

The average monthly downloads, which was 10925 in 2002 increased to 108346 by May 2005 accounting to nearly 992% increase (Table 4). Yearly downloads increased from 1,31,109 in 2002 to 13,00,154 in 2005 (NISCAIR 2005) (Figure 1, value taken for 2005 by extrapolating based on average of 5 months downloads).
Table 4: Downloads of Articles from Science Direct (Elsevier)

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total</th>
<th>Monthly Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>5560</td>
<td>7257</td>
<td>3101</td>
<td>6668</td>
<td>7778</td>
<td>8016</td>
<td>11340</td>
<td>12906</td>
<td>20116</td>
<td>19945</td>
<td>28442</td>
<td></td>
<td>131109</td>
<td>10925</td>
</tr>
<tr>
<td>2003</td>
<td>33840</td>
<td>34393</td>
<td>34660</td>
<td>40602</td>
<td>45077</td>
<td>59389</td>
<td>90337</td>
<td>85752</td>
<td>91166</td>
<td>90104</td>
<td>83106</td>
<td>72667</td>
<td></td>
<td>761093</td>
</tr>
<tr>
<td>2004</td>
<td>57014</td>
<td>62192</td>
<td>73384</td>
<td>69490</td>
<td>62972</td>
<td>78461</td>
<td>96277</td>
<td>106199</td>
<td>99997</td>
<td>81557</td>
<td>84534</td>
<td>112995</td>
<td></td>
<td>985072</td>
</tr>
<tr>
<td>2005</td>
<td>11532</td>
<td>131131</td>
<td>166390</td>
<td>106642</td>
<td>126336</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>541731*</td>
</tr>
</tbody>
</table>

* Total of downloads of 5 months in 2005
Figure 1: Yearly Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>200000</td>
</tr>
<tr>
<td>2003</td>
<td>800000</td>
</tr>
<tr>
<td>2004</td>
<td>1200000</td>
</tr>
<tr>
<td>2005*</td>
<td>1600000</td>
</tr>
<tr>
<td>2005**</td>
<td>1600000</td>
</tr>
</tbody>
</table>

Note: * Data from Jan-May only.
** Extrapolated based on monthly average of 2005 data.

Statistics of Number of Journals Used

The usage of the e-journals has been steadily increasing. The usage data reveals that all 1800 journals are not being used by CSIR. The larger amount of information is from lesser number of journals vis-a-vis lesser amount of information is from larger number of journals. But, the basic purpose of consortium should be to meet the needs and wants of all its users and thus that negates the subscription on core requirement basis.

Usage of Subscribed Journals

A chain of 38 laboratories of CSIR subscribe 550 journals from M/s Elsevier at the cost of Rs 7.5 crore per annum and out of these 390 are unique titles. Thus procured journals can’t be shared among the labs being in print form. When these 390 journals put to e-usage, the quantum of usage in terms of number journals jumps to ~ 11 times i.e. equivalent to
4679 journals which may cost to over Rs 50 crore per annum (Chand 2005) (Table 5).

**Table 5: Usage Pattern of Number of Journals Statistics**

(July 2003 - December 2004)

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Month</th>
<th>1-10 %</th>
<th>11-20 %</th>
<th>21-30 %</th>
<th>31-40 %</th>
<th>41-50 %</th>
<th>51-60 %</th>
<th>61-70 %</th>
<th>71-80 %</th>
<th>81-85 %</th>
<th>91-95 %</th>
<th>95-100 %</th>
<th>Total No. of Jrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jul-03</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>25</td>
<td>36</td>
<td>53</td>
<td>88</td>
<td>70</td>
<td>100</td>
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<td>2</td>
<td>Aug-03</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>19</td>
<td>26</td>
<td>42</td>
<td>61</td>
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<td>73</td>
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<td>3</td>
<td>Sep-03</td>
<td>1</td>
<td>6</td>
<td>14</td>
<td>21</td>
<td>30</td>
<td>43</td>
<td>63</td>
<td>100</td>
<td>75</td>
<td>105</td>
<td>177</td>
<td>708</td>
</tr>
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<td>5</td>
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<td>13</td>
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<td>42</td>
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<td>97</td>
<td>73</td>
<td>103</td>
<td>167</td>
<td>705</td>
</tr>
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<td>2</td>
<td>9</td>
<td>14</td>
<td>21</td>
<td>28</td>
<td>41</td>
<td>59</td>
<td>93</td>
<td>69</td>
<td>97</td>
<td>168</td>
<td>675</td>
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<td>7</td>
<td>13</td>
<td>19</td>
<td>26</td>
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<td>58</td>
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<td>67</td>
<td>96</td>
<td>158</td>
<td>645</td>
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<td>69</td>
<td>103</td>
<td>162</td>
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<td>13</td>
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<td>103</td>
<td>167</td>
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<td>12</td>
<td>19</td>
<td>26</td>
<td>37</td>
<td>50</td>
<td>83</td>
<td>63</td>
<td>85</td>
<td>147</td>
<td>604</td>
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<td>Jun-04</td>
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<td>7</td>
<td>11</td>
<td>18</td>
<td>25</td>
<td>35</td>
<td>49</td>
<td>79</td>
<td>65</td>
<td>91</td>
<td>159</td>
<td>671</td>
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<tr>
<td>13</td>
<td>Jul-04</td>
<td>1</td>
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<td>13</td>
<td>17</td>
<td>25</td>
<td>39</td>
<td>55</td>
<td>90</td>
<td>70</td>
<td>100</td>
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<tr>
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<td>Aug-04</td>
<td>1</td>
<td>8</td>
<td>12</td>
<td>22</td>
<td>30</td>
<td>45</td>
<td>66</td>
<td>105</td>
<td>77</td>
<td>106</td>
<td>169</td>
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<tr>
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<td>Sep-04</td>
<td>1</td>
<td>8</td>
<td>13</td>
<td>20</td>
<td>31</td>
<td>44</td>
<td>75</td>
<td>105</td>
<td>73</td>
<td>101</td>
<td>173</td>
<td>737</td>
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<tr>
<td>16</td>
<td>Oct-04</td>
<td>1</td>
<td>9</td>
<td>12</td>
<td>20</td>
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<td>57</td>
<td>95</td>
<td>69</td>
<td>96</td>
<td>162</td>
<td>680</td>
</tr>
<tr>
<td>17</td>
<td>Nov-04</td>
<td>1</td>
<td>7</td>
<td>11</td>
<td>18</td>
<td>24</td>
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<td>53</td>
<td>87</td>
<td>65</td>
<td>92</td>
<td>145</td>
<td>621</td>
</tr>
<tr>
<td>18</td>
<td>Dec-04</td>
<td>1</td>
<td>7</td>
<td>13</td>
<td>18</td>
<td>27</td>
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<td>53</td>
<td>81</td>
<td>62</td>
<td>89</td>
<td>152</td>
<td>681</td>
</tr>
</tbody>
</table>

|        | Total   | 25     | 126     | 218     | 338     | 484     | 706     | 1043    | 815     | 324     | 432     | 387     | 22989         |
|        | AVG Jrs | 1      | 12      | 19      | 27      | 39      | 58      | 92      | 69      | 99      | 164     | 690     | 1277          |
|        | AVG Total| 1      | 8       | 20      | 39      | 66      | 105     | 163     | 255     | 324     | 423     | 587     | 1277          |

1. Total No. of Journals accessed = 1277
2. No. of Journals for 30% access = 20
3. No. of Journals for 50% access = 66
4. No. of Journals for 85% access = 324
3.4.3 Indian National Digital Library in Science and Technology

Consortia (http://paniiL iitcLac. in/indest/)

The Indian National Digital Library in Science and Technology (INDEST), set up by MHRD is the most ambitious initiative taken so far in the country. It is a very successful open-ended consortium for benefit of mainly 38 institutions including IISc, IITs, NITs, IIMs and a few other centrally-funded Government institutions. Besides, a number of engineering colleges have joined this initiative with the financial assistance of AICTE. This consortium for having adopted open ended model but with a layered access eligibility, allows other institutions with similar objectives to join together for getting the better pricing for the databases being subscribed. The initiative started with a national seminar in December 2000. The Ministry had set up a "Consortia-Based Subscription to Electronic Resources for Technical Education System in India" based on the recommendations of the expert group appointed by the ministry. Sustained efforts by several involved stake holders resulted in its take off with consortia subscription for 2003, for over 5,000 e-journals from ten primary publishers and a few aggregators, and a few databases. With central funding by the Ministry of Human Resources Development (MHRD) for 38 Institutes, and a national vision, INDEST has expanded its consortium membership to 120 institutions. It has deployed a resource sharing model beyond consortia subscribed journals using J-Gate Custom Content for Consortia (JCCC), publisher-independent resource-sharing and access gateway for e-journals access to both consortium and library subscribed online journals and sharing print journals across 30+ libraries in the consortium. A good number of e-resources have been made available including Science Direct, IEL Online, Springer Verlag's link, Applied Science & Technology Plus, ABI Inform Complete, ACM Digital Library, ASCE Journals, ASME Journals, COMPENDEX and INSPEC on

3.4.3.1 INDEST Extended

INDEST has initiated number of new consortia services like:

- Technology support to members
- Joint archives and storage facility
- Shared Digital Library Project Development
- Shared E-Reference Service
- Common Union Catalog for Books
- Developing shared technology resources and infrastructure like meta search engines, Link Servers, etc.

3.4.3.2 Governance and Management

The Consortium operates through its Headquarters set-up at the IIT Delhi. A National Steering Committee takes care of inter-institutional coordination and decisions on policy issues under the overall policy direction of the Government of India. A National Review Committee is responsible for overall policy, monitoring and coordination with UGC and AICTE for this Consortium (Arora 2002).

3.4.3.3 Resources Selection and Procurement

Resource selection for consortial purchase requires considerable care, effort and judicious involvement of the members. Some of the criteria
for selection of e-resources used for the INDEST Consortium (Arora 2004) are as follows:

- Preference for resources already on subscription in the beneficiary institutions;

- Well-established multi-disciplinary resources with broad coverage were preferred over highly specialized sources targeted for specialists;

- Preference for very important but highly cost-intensive 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 their usage / suitability to their respective institutions.

3.4.3.4 Usage, Feedback and Sustenance

INDEST is yet to evolve a sustainable funding model and mechanism beyond MHRD funding. This area needs serious attention and innovation by INDEST Managers. Lack of additional funds is likely to affect many of its service development plans. They claim to have convinced the Ministry for continued funding. At the same time membership base is being broadened of course with a membership fee tag. Equally the withdrawal of membership by individual institutes is avoided by providing value added services. Resources subscribed by the consortium need to be reviewed periodically. It is more crucial to evaluate all subscription critically considering the fact that consortium subscribes to the multiple number of
resources for its members. Willingness of all members of the consortium to cooperate is a prerequisite to the success of a consortium initiative. There seem to be good working relationship amongst INDEST members, which is the basis for its success. It has been established that all categories of institutions have recovered the cost incurred for e-resources subscribed for them for both the years (i.e. 2003 and 2004) although the extent of usage vary from one category of institution to another (Sathyanarayana 2004, Arora 2004).

3.4.4 UGC -INFONET Consortia (http://inflibnet.ac.in)

The University Grants Commission has launched an ambitious programme to bring about a qualitative change in the academic infrastructure, especially for higher education. Under this initiative UGC is modernizing the university campuses with state-of-the-art campus wide networks and setting up its own nationwide communication network named UGC-Infonet. INFLIBNET Centre is a nodal agency to monitor, decide, the connectivity and provide content over the network w.e.f. Jan, 2003. UGC-Infonet is based on open IP platform, employing state-of-the-art technologies like IP Multicast, TCP spoofing and other tools that provide interactive education on PC, enabling online response to queries. Open system architecture will ensure high data rates access to Intranet and Internet resources. Universities have been provided the bandwidth ranging from 256 Kbps to 2 Mbps depending on the perceived needs of the specific university and the infrastructure available.

The INFLIBNET has initiated a Consortia under its INFONET program to provide electronic access over the Internet to scholarly journals, bibliographic databases, books and references sources to address the teaching, learning, research, connectivity and governance requirements of the Universities in India. The program has an ambitious plan to provide access to about 5000 journals, a good number of
bibliographic databases and other kind of documents for the benefit of all 311 Indian universities and over 14000 affiliated colleges under these universities. In the first phase the access to e-resources was given to 50 universities since January 2004 and again it was extended to another 50 universities in 2005. The programme has been made possible due to understanding and cooperation between the UGC, ERNET, the Inter-University Centres IUCAA, INFLIBNET and CEC, and national and international publishers (Cholin and Karisiddappa 2002, Kumbar 2002). The E-Journals programme aims at covering all fields of learning of relevance to various universities including:

- Arts, Humanities and Social Sciences
- Physical and Chemical Sciences
- Life Sciences
- Computer Science, Mathematics, Statistics

Access is provided to current as well as archival literature. Portals are provided which will enable users to navigate easily through all the literature that is made available.

3.4.4.1 Resources

The UGC-Infonet Consortium has signed agreement with 18 publishers covering agreements covering E-journals, Bibliographic Databases and Portals (INFLIBNET 2005) (Table 6).
Table 6: Resources and Beneficiaries of UGC-Infonet

<table>
<thead>
<tr>
<th>Name of the Publisher</th>
<th>No. of Journals / Database</th>
<th>No. of Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. American Chemical Society</td>
<td>31 Journals</td>
<td>50</td>
</tr>
<tr>
<td>2. Royal Society of Chemistry</td>
<td>23 Journals + 6 Databases</td>
<td>50</td>
</tr>
<tr>
<td>3. Chemical Abstracts Services (Sci-finder Scholar)</td>
<td>One Database</td>
<td>10</td>
</tr>
<tr>
<td>4. Chemical Abstracts – STN service</td>
<td>One Database</td>
<td>100</td>
</tr>
<tr>
<td>5. Nature Publishing Group</td>
<td>One Journal</td>
<td>50</td>
</tr>
<tr>
<td>6. Institute of Physics Publishing (IOPP)</td>
<td>36 Journals</td>
<td>50</td>
</tr>
<tr>
<td>7. Cambridge University Press</td>
<td>72 Journals</td>
<td>50</td>
</tr>
<tr>
<td>8. Project Muse</td>
<td>222 Journals</td>
<td>50</td>
</tr>
<tr>
<td>9. Biological Abstracts – BIOSIS</td>
<td>One database</td>
<td>50</td>
</tr>
<tr>
<td>10. Encyclopedia Britannica</td>
<td>National site Licensing</td>
<td>All academic Institutions</td>
</tr>
<tr>
<td>11. 10. JSTOR – Archival Access</td>
<td>317 Journals (Arts &amp; Science I &amp;II, III including Languages &amp; Linguistics)</td>
<td>24</td>
</tr>
<tr>
<td>12. American Institute of Physics</td>
<td>19 Journals including AIP society package-II titles</td>
<td>50</td>
</tr>
<tr>
<td>13. American Physical Society</td>
<td>8 Journals</td>
<td>50</td>
</tr>
<tr>
<td>14. Science Online</td>
<td>One Journal</td>
<td>50</td>
</tr>
<tr>
<td>15. Springer and Kluwer Publications</td>
<td>Subscriptions to 200 Journals but the access for all 1200 Journals in the initial one year</td>
<td>50 + 50 Universities will have trial access</td>
</tr>
<tr>
<td>17. Emerald Library</td>
<td>28 Journals</td>
<td>30</td>
</tr>
<tr>
<td>18. Annual Reviews</td>
<td>29 Journals</td>
<td>50</td>
</tr>
<tr>
<td>19. Gateway Portals</td>
<td>Cover more than 10,000 journals up to abstract level</td>
<td>56 Universities for one year</td>
</tr>
</tbody>
</table>
Discussions are in progress with several other publishers and their publications are expected to become available in stages.

UGC-Infonet is the first consortium to address the infrastructure issues at the member library sites before planning the content licensing stage. It has invested significant time for making considerable evaluation of resources for selection and obtaining the best pricing terms and models from the vendors. The thoughtfully adopted e-only model without any links to the current print holdings by its member universities is ideal for funding hit conventional universities in India.

3.4.4.2 Operation

INFLIBNET administers and monitors the programme and have independent electronic access to all the publications to help with the process. INFLIBNET gets one free print copy of each journal from many publishers, which can be a national repository at Ahmedabad on the Gujarat University Campus. A web site has been created to provide all needed information to consortium members about the status of the programme at http://web.inflibnet.ac.in/econ/index.htm.

3.4.4.3 Training Programs:

INFLIBNET conduct various training programmes at different places to spread awareness and to develop expertise in the university community in the use of E-Resources. Special training programmes, seminars are conducted on different University campuses by publishers of complex databases.

3.4.5 HELINET Consortia of RGUHS (www.rguhs.ac.in)

3.4.5.1 Need:

Currently 221 medical colleges offer graduate and post-graduate programs in the country. Karnataka State has maximum number of health science institutes in the country with the number touching 333, covering
all disciplines such as Medical, Dental, Pharmacy, Nursing, Physiotherapy, Indian Medicine Specialties like Ayurveda, Yogic sciences etc. The professional health education system in the State produces annually 15,450 health science professionals which includes 2,990 Medical Doctors, 2,159 Dentists, 3,381 Nurses, 2,368 Pharmacists, 1,217 Physiotherapists, etc. Karnataka promoted Rajiv Gandhi University of Health Sciences (RGUHS) in 1994 to focus distinctly on a better planned development of health science education. The Computing and Internet infrastructure in the medical colleges is currently inadequate with 9 of the 34 colleges having LAN facility and rest depend on dial-up connectivity. The per-capita PC population is still very small and estimated at 5 PCs per 100 students. The library budgets for collection development range between US$1,000 to US$100,000, with Medical and dental colleges spending larger sums. The number of international journals subscribed by these libraries ranges between 50 to 300 with an estimated total spending by 34 medical colleges is around US$1.1 million. A study indicated that Medical College Libraries had a total of 2,177 subscriptions to international journals, constituting 674 titles. The average number of subscriptions per college was 87 with 348 titles subscribed by only one of the 25 Libraries. None of the libraries had subscription to any e-Journals. A few libraries (less than 20%) were found using the available Internet connectivity for accessing PubMed and any other resources. Most of the libraries were not even aware of many open access journals and publishers offer free online access against print. This situation of low awareness of e-Journal availability and advantage was largely due to inadequate Internet and IT infrastructure in most of the colleges. The RGUHS Digital Library (RDL) started in 90's has set a mission – to provide convenient and cost-effective access to global and local health science literature for students and faculty of all the colleges affiliated to RGUHS. The goals of this initiative are:
• To continuously enhance the quality of access provisions to health science information

• To network all the libraries affiliated to RGUHS and promote enhanced access through resource sharing models and programs.

• To develop and maintain state-of-the-art digital library infrastructure as a common facility for all the colleges.

• To provide training and development support to the libraries at the affiliated colleges.

Health Science Library and Information Network (HELINE) concept was adopted by RGUHS in 2001 to network all health science libraries under its affiliation and develop a consortium for resource sharing.

3.4.5.2 Resources

The consortia provides access to different kind of e-resources to different health disciplines as given below:

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Type of resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>E-journals, E-books, Clinics, Year books</td>
</tr>
<tr>
<td>Dental</td>
<td>E-journals</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>E-journals, E-books</td>
</tr>
<tr>
<td>Nursing</td>
<td>E-journals, E-books</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>E-journals, E-books</td>
</tr>
<tr>
<td>Other faculties</td>
<td>E-journals, E-books</td>
</tr>
</tbody>
</table>
Publishers and kinds of resources made available to Consortia participants:

<table>
<thead>
<tr>
<th>Publishers</th>
<th>Type of resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Direct</td>
<td>(E-journals)</td>
</tr>
<tr>
<td>Ovid</td>
<td>(E-journals and E-books)</td>
</tr>
<tr>
<td>MD Consult Collections</td>
<td>(E-books, E-journals, Clinics &amp; Year books)</td>
</tr>
<tr>
<td>Blackwell Publishing</td>
<td>(E-journals)</td>
</tr>
<tr>
<td>CABI Publishing</td>
<td>(E-journals)</td>
</tr>
<tr>
<td>Bentham Science</td>
<td>(E-journals &amp; E-books)</td>
</tr>
<tr>
<td>Nature Publishing</td>
<td>(E-journals)</td>
</tr>
<tr>
<td>Annual Reviews</td>
<td>(E-journals)</td>
</tr>
<tr>
<td>Skolar - MD</td>
<td>(E-books)</td>
</tr>
<tr>
<td>Springer &amp; Kluwer</td>
<td>(E-journals)</td>
</tr>
<tr>
<td>Springer</td>
<td>(E-books)</td>
</tr>
<tr>
<td>Taylor &amp; Francis</td>
<td>(E-journals)</td>
</tr>
</tbody>
</table>

**3.4.5.3 Guidelines Pricing and Funding:**

Consortia purchase of e-journals is publisher or aggregator specific and largely involves negotiating big deals. The following basic guidelines have been adopted:

- The consortium has adopted e-only model.
- Adopted a combination of publisher, aggregator model.
- Funding comes from the College Managements in a participatory model (student-funded model).
- The University intends to fund the infrastructure development for e-Journal access.
• The selection of journals-publisher combination is need based.

• The licensing model for e-journals intends to provide for perpetual access and local archiving rights.

In order to have sustainable funding for HELINET program an ordinance was passed by the syndicate of University for prescribing annual fee for students and institutes as given in Tables 7 & 8 respectively (Urs 2005):

Table 7: Students Annual Fee Structure

<table>
<thead>
<tr>
<th>Faculties</th>
<th>UG Rs.</th>
<th>PG Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>1000</td>
<td>2000</td>
</tr>
<tr>
<td>Dental</td>
<td>1000</td>
<td>2000</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Nursing</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Ayurveda/Homoeopathy/Unani/Yoga</td>
<td>300</td>
<td>600</td>
</tr>
<tr>
<td>Others</td>
<td>250</td>
<td>500</td>
</tr>
</tbody>
</table>

Table 8: Institutional Annual Fee Structure

<table>
<thead>
<tr>
<th>Faculties</th>
<th>Annual fee Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Dental</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>25,000</td>
</tr>
<tr>
<td>Nursing</td>
<td>25,000</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>25,000</td>
</tr>
<tr>
<td>Ayurveda/Homoeopathy/Unani/Yoga</td>
<td>25,000</td>
</tr>
<tr>
<td>Others</td>
<td>10,000</td>
</tr>
</tbody>
</table>
The Institutions offering Post-graduate courses along with Undergraduate courses shall pay an additional 30% of the above annual fee.

3.4.5.4 Governance Structure

- RDL is the nodal library of HELINET
- All the colleges affiliated to the university are the members
- Board of Management with –
  - The Vice-chancellor as its Chairman
  - The University Librarian as Co-coordinator
  - The Registrar and the Finance Officer as ex-officio members
  - Members from the Deans of Faculties nominated by the University.
- Faculty Committees constituted by the Board for each discipline to the select resources.

A Memorandum of Understanding (MOU) was presented to the Principals and Managements of the colleges and their concurrence and funding commitment was obtained.

3.4.5.5 Gateway Technology

It also adopted an indigenously developed and locally available e-Journal gateway technology called J-Gate, and commissioned the development of a customized gateway for its need, called J-Gate Custom Content for Consortia (JCCC).

3.4.5.6 Usage

The articles downloaded through this initiative accounted for 21591, 32687 and 55698 respectively for the years 2003, 2004 and 2005.
respectively (Urs 2005). In order to promote the usage the HELINET is organizing traveling workshops in various colleges.

3.4.5.7 Future Plans:

HELINET has already caught the attention of other Health Science Universities in the country and plans to launch its HELENET Extended version to other Universities and Health Science institutions with an ambitious goal of upgrading it to national consortium for health science education and research sector.

3.4.6 Consortium of ICICI Knowledge Park

Developed jointly by Andhra Pradesh Government, ICICI and NISSAT (DSIR), ICICI Knowledge Park, Hyderabad is a R&D infrastructure of highest standard. The park houses several corporate R&D establishments, both Indian and multinational and is growing steadily in its research population. The park has a unique facility – the Virtual Information Centre (VIC). This centre has the responsibility to provide access to information to its member R&D establishments in the park.

Information Services

- Document delivery;
- Translation services;
- Information search and retrieval;
- Training programs; and
- Access to databases hosted on VIC Web site
Consortium Members

- VIC;
- ICICI Knowledge Park, Hyderabad;
- National Chemical Laboratory, Pune;
- Indian Institute of Chemical Technology (IICT), Hyderabad;
- Centre for Cellular and Molecular Biology (CCMB), Hyderabad;
- University of Hyderabad, Hyderabad;
- National Institute of Nutrition, Hyderabad; and
- ICRISAT, Hyderabad.

User Groups

- Professionals and research scholars of tenant companies at the park;
- Premier institutions of repute who are member-partners of the knowledge network; and
- Registered users

Initiated and implemented by VIC, a unique and customised e-journal consortium called JCCC@VIC has been established, using J-Gate based content technology platform offered by Informatics for resource sharing. The following are some of the features of JCCC (Sathyanarayana et al. 2004):

- Provides common access to table of contents (TOC) of 500+ journals and full text articles;
• Provides common TOCs and database search facility for both print as well as on-line journals content subscribed by all the consortia members;

• Provides links to abstract of the article;

• Enables downloading the full-text of the articles for journals for which an online subscription is available;

• Facilitates instant generation request for photocopy of articles by e-mail from journals subscribed by and among members;

• Facility to search a bibliographic database of articles and links to full text from JCCC interface;

• Content is mirrored in the server of each participating consortia member; and

• Links to the list of journals subscribed by each consortia member.

3.4.7 GE-Global Research Consortia

3.4.7.1 Background

General Electric Company has opened its biggest outside US Research & Development organization in India in the year 2000 by name John F Welch Technology Center (JFWTC). JFWTC is unique in terms of the technologies and technical disciplines one gets to see, experience, and work with. At GE, one of the measures of innovation is the impact of technology on key business indicators. However, patents are a good indicator of innovation as well. Our technologists have filed more than 250 U.S. patent applications, of which 37 have been granted. While this is significant achievement, it is just the beginning of a long Journey of innovation. Information is key for innovation process. Whitney Knowledge
Centre (WKC) plays vital role in this direction with a clear vision “One Global Knowledge Management Team, committed to be a True Partner to GE Global Research and to the Businesses, with the insatiable desire to Win For GE”.

3.4.7.2 WKC Mission and Credentials

Partner to global GEGR and GE business & technology teams providing:

- Optimized, integrated, and efficient library and information services
- Uniform and simplified library processes
- Comprehensive, timely, and impactful technical, competitive, and IP analyses to enable the development of break-through technologies
- Customer focused and customer driven Library & Information Services
- WKC is the first and only Information Centre in Indian private R&D set-up which has web-based access to all its Journals, which provides instant access to the technical literature of 300 plus journals
- Strong urge to develop e-Resources; First and only centre to have eBook procurement policy; Instant access to 1000 plus e-Books
- Best in the Industry Services: Document Delivery Service and Translation Services
- User training on WKC resources and services
- Experienced staff
- Up-to-date portal for accessing WKC resources and Services
3.4.7.3 WKC Consortia Resources

- E-Journals: Instant access to Journal content of the following publishers
  - 100 plus Elsevier Journals
  - 40 plus Wiley Journals
  - ASME Journals
  - Institute of Physics (IoP)
  - Other Popular Journals/Magazines: Science, Nature etc

- Databases
  - MicroPatent: Full text database of patents
  - Engineering Village 2: Compendex, CRC ENGINetBASE
  - IEL database: All IEEE Journals, Conference proceedings and Standards

- E-Books
  - Knovel
  - NetLibrary

- 10,000 plus Books (paper version)

3.4.7.4 Subscription of Resources and Access Details

WKC's objective is to provide un-interrupted and unlimited access to all the resources to its global customers. Following is a brief summary of the challenges with the publishers/agencies in relation to enabling access to the e-Resources through GE-Global Research consortia (Byrappa 2005). Table 9 gives details of about resources and access scope for its members.
• **Product related**
  
  • Product quality
  
  • Lack of good competitive/alternative products
  
  • Delay in content updating
  
  • Bibliographical databases have a big time-gap in content updating
  
  • Delay in publishing Journals
  
  • Unfriendly User interfaces and Lack of willingness to customize

• **Pricing related**
  
  • Ever increasing subscription renewal costs
  
  • Big difference in pricing for business/corporate organizations
  
  • Unreasonable pricing models (Ex. IEL. More you use more expensive like old BSNL pricing!)
  
  • Lack of clarity in pricing (No hard and fast rule! No one sticks to the catalogue price!!)

• **Access related**
  
  • Unfriendly access models (Ex. Wiley does not have selling/pricing model for the their e-journal content which is part of their back files)
  
  • Archival access: Lack of clarity and willingness from the publisher (Publishers like IEL does not offer it on their platform)
  
  • No Long-term storage and retrieval options
  
  • Lack of flexibility in adding IP address (only Wiley provides this feature to Librarian)
### Table 9: WKC Resources - Access Type and Scope

<table>
<thead>
<tr>
<th>Component</th>
<th>WKC Resource</th>
<th>Access type</th>
<th>Access Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Databases</td>
<td>Engineering Village2</td>
<td>IP based (unlimited)</td>
<td>20 global locations</td>
</tr>
<tr>
<td></td>
<td>IEL/IEEE</td>
<td>Simo(concurrent user)type</td>
<td>4 global locations</td>
</tr>
<tr>
<td></td>
<td>MicroPatent</td>
<td>IP based (unlimited)</td>
<td>4 global locations</td>
</tr>
<tr>
<td>E-books</td>
<td>Knovel</td>
<td>IP based (unlimited)</td>
<td>40 global locations</td>
</tr>
<tr>
<td></td>
<td>NetLibrary</td>
<td>Simo(concurrent user)type</td>
<td>All global locations</td>
</tr>
<tr>
<td>E-journals</td>
<td>Elsevier</td>
<td>IP based (unlimited)</td>
<td>25 global locations</td>
</tr>
<tr>
<td></td>
<td>Wiley</td>
<td>IP based (unlimited)</td>
<td>20 global locations</td>
</tr>
<tr>
<td></td>
<td>IoP</td>
<td>IP based (unlimited)</td>
<td>All global locations</td>
</tr>
<tr>
<td></td>
<td>Nature &amp; Science</td>
<td>IP based (unlimited)</td>
<td>4 global locations</td>
</tr>
<tr>
<td></td>
<td>AIP</td>
<td>IP based (unlimited)</td>
<td>4 global locations</td>
</tr>
</tbody>
</table>

### 3.4.7.5 Usage and Training:

The following observation need to be attended:

- Lack of standardization in reports usage
- Need for better and periodical training
3.4.8 Consortium of IIMs

3.4.8.1 Background

During a meeting of all six Indian Institutes Management held at Kozhikode an idea of setting up of a resource sharing platform was decided to subscribe to some journals and bibliographic databases. Subsequently all of them signed an MOU in this regard. Later a formal consortium too was set up on membership basis, where in each participating member contributes for the resources one enjoys. Apart from setting up of their own consortia, IIMs have become part of INDEST Consortium as a second layer member and got access to number of e-journals and bibliographic databases. Individual IIMs have also got in to agreement with some publishers for giving access to few e-resources for their own clients. The subjects covered include - Management, Social and Behavioral sciences (Chikkamallaiah 2002, Jambhekar et al. 2003, Raina and Sreekumar 2003).

3.4.8.2 Resources

E-journals: Titles from publishers like Elsevier (Business Management and Accounting – 75, ..., Science – 39, Economics, Econometrics and Finance - 76), Blackwell (306), Kluwer (now part of Springer, 37), Emerald (131), Wiley (31), Taylor and Francis (35); IEL Online (219), ACM Digital Library (32 titles and also reports); > 5000 titles from Aggregator EBSCO.

Bibliographic Databases: About 33 bibliographic databases (in case of IIMB – different numbers for others) including ABI-Inform, JCCC, ECONLIT, Psycoinfo, Sociofile, INSIGHT (Corporate Database), CRISINFAC, and GMID (Global Market Information Database).

E-Books: Ebrary with access to 4000 titles in case of IIMB.
IIM Bangalore, alone claims the annual savings of Rs. 16.42 lakhs for accessing bibliographic databases. IIM consortia did not find any difficulties dealing with the publishers in spite of their payment directly to the publishers individually against distributed invoicing based on agreed amount of their share of consortia dues. Role of all IIM librarians is the main source for the success of this initiative (Goudar 2004).

3.5 OBSERVATIONS AND INFERENCES ON INDIAN CONSORTIA INITIATIVES

- Each of the Indian consortia have their own genesis, geographical spread, reason for the creation, audience to address and governance and administrative structure. The following observations and inference have been made as complimentary to the survey conducted with the consortia managers and users of consortia in India.

- Consortia initiatives like FORSA, IIM, GE Global research, etc., are self-funded by member libraries from their own resources. However IIMs also form part of MHRD funded INDEST to access second level access to good number of other resources.

- CSIR E-Journal Consortium is funded partly by the CSIR Headquarters. While individual CSIR laboratories pay for the print, CSIR headquarters pays for the electronic version.

- The Government funds the INDEST Consortium for its e-only subscriptions, however, for print-based models, the Govt. pays for the surcharge for e-access while individual libraries pay for print subscriptions. INDEST also have members who pay their own subscription under its self-supported category.

- UGC-Infonet consortium is completely funded by UGC, enabling it to go for e-only model.
• The HELINET works on a cost-sharing model both by students and its constituent colleges.

• Training program for members of consortium is a decentralised activity, in case of INDEST Consortium.

• CSIR Consortia host has been conducting training at different locations for group of laboratories region wise in collaboration with publishers.

• INFLIBNET is conducting training programmes at different places in collaboration with universities and publishers for UGC - Infonet consortia users.

• There is need to sensitise librarians and consortia managers on issues of licenses and agreements that consortium signs with the publishers (Amba 2002).

• Lack of IT infrastructure is still a serious bottleneck for consortia success in most of the Indian universities and even in some of the national institutions.

• Three types of Consortia models in operation India:
  
  • *Centrally Funded Model*: INDEST, UGC – Infonet, and CSIR Consortia
  
  • *Open-ended Consortia*: FORSA, INDEST and GE-Global Research
  
  • *Closed-ended Consortia*: IIM and CSIR
  
  • *Shared-budget Model*: IIM, HELINET and FORSA
• Effective communication at consortia host level and participating libraries level and with publishers is required for success of consortia movement in India.

• The Indian consortia, with collective expertise should develop/adopt suitable technologies facilitating use of open system, standards and interoperability of library systems and digital archives and same should be passed on to members for use.

• Usage monitoring of consortia is being done by CSIR, INDEST, UGC-Infonet and HELINET. But all of them depend on the data provided by respective publishers.

• Most suitable consortia model for India is national consortium on a model similar to CALIS in China and CONCERT in Taiwan in view the most of the funding for education and research comes from Government.

3.6. Consortia Constraints Specific to India

• Lack of awareness about consortia benefits

• Slow acceptance of e-information by the users.

• Difficulties in changing the mind setup of librarians

• Maintenance and balancing both physical and digital library

• Inadequate funds

• Single point payment

• Rigid administrative, financial and auditing rules

• Problems of defining asset against payment
• Pay-Per-View not yet acceptable
• Uncertainty about the persistence of digital resources.
• Lack of infrastructure for accessing electronic sources
• Unreliable telecommunication links and insufficient bandwidth
• Lack of appropriate bibliographic tools
• Lack of trained personnel for handling new technologies
• Absence of strong professional association
• Big brother attitude.

3.7 CONCLUSION

In a country like India where the Government has a lion share of funding for education and research. All institutions like CSIR, ISRO, ICMR, ICAR, DRDO, DAE, UGC and a host other governmental, public and private sector institutions and corporate libraries must be spending few hundred crores on acquisition of both print and e-resources. Ensuring optimal use of electronic resources is one of the biggest concern for consortium that receives central funding from the Government. Libraries and information professionals are required to play a proactive role in promoting usage of resources amongst faculty and researchers. Consortia with same resources and same goals should merge and subsumed in each other, while consortia with different resources may collaborate for similar products and services. A national consortium would greatly reduce duplication of efforts and provide greater purchasing power. sector a Government-funded national consortium is most practical solution. It would be best for different consortia to come together so that the benefit of larger number is suitably used and passed on to the members of consortium in the larger national
interest. Therefore, it is suggested that there should be national site license for nationwide access to world literature. The evolving more and more consortia do not save money rather it add cost to existing one. Primarily, the consortium approach should be to expand the information resource base to serve its all users adequately on economic parameters which can be addressed through national site license with a focus on access model and archival issues.

Providing access to e-resources to the faculty and researchers is not a purpose in itself. It is only a mean to trigger a stronger research and academic culture in the institutions recipient of this benefit. The consortium efforts should, therefore, lead to increase in productivity of scientific and research output both in quality and quantity.

The economics of scales suggest that the activity of a consortium should not be restricted to purchase of electronic resources. Instead, it should include more and more activities that require collaborative efforts where consortium as a platform and its infrastructure can work as a catalyst.
REFERENCES


...


Urs, Rama Raj R. "Networking of Health Science Libraries: Resources and Standards", Jaypee Brothers, New Delhi, 2000; p147.