

“Progress Through Partnership” Consortia Based e-Resource Subscription Initiatives in India

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**Abstract:** *Indian libraries are constantly grappling with the issue of ever-escalating cost of scholarly resources (especially e-resources) coupled with budgetary constraints. However, price escalation in journal subscription has great impact on libraries. Indian scenario depicts that, over the decade (1986-'96) libraries were dropped roughly around 15% of their foreign subscriptions. To encounter with these prevalent situations have resulted the emergence of resource sharing - site licensing - and ultimately a significant growth in number of 'Library Consortia'. In fact, consortia based subscription of online resources (CBSOR) has proved to be a common strategy among the libraries (having similar interests, purposes and needs) to sustain the buying power in collection development. This paper examines the consortia as 'semiformal organization' and is one of the emerging toolkits for libraries to survive. It also draws attention to the ideas on consortia and viewed in different angles, viz. factors for creating successful consortia, potential benefits, organizational models, etc. The paper highlights various supportive measures that have been taken by the government (both central & state), learned-societies, stakeholders and other renowned libraries of India for the balanced development of the North Eastern libraries.*

*This paper recognizes the growth of library consortia across the globe and a special emphasis have been made to Indian efforts done in this direction. However, it enumerates a brief account of some of the major initiatives taken from Indian libraries during last couple of years. A detail study highlights the environmental circumstances (economic, political, cultural, etc.) that are unique to India, hampered the consistent growth of consortia in Indian libraries and even some of the initiatives could not materialized properly. Still, an encouraging sign is being observed in the recent growth of consortia in Indian libraries. The consortia like – INDEST, UGC InfoNet, FORSA, CSIR, HELINET, IIMs, ISI Libraries Consortia VIC, ISRO, ICMR, etc. are the most ambitious among the initiatives taken so far in the country. This paper also emphasizes the common hurdles towards the formation of consortia in Indian context.*

**Keywords:** Library consortia, e-Resource subscription, Resource sharing, Collection development, India

**Introduction** – The globalization of education and multi-directional research output constantly enforcing to disappear the borders between different disciplines. In fact, discrete boundaries no longer exist between the disciplines<sup>1</sup>. Therefore, the new paradigm for 'seamless integration of disciplines' posed the multidisciplinary research opportunities, results a great demand for scholarly communications. Moreover, technological innovations influencing the global connectivity (techno-globalization) through information technology and the concept of 'virtual library' is gaining momentum. The emergence of Internet especially W3 as a new media of information delivery triggered proliferation of web-based resources. Again, increasing use of the Internet (for better, faster, and timelier communication) and phenomenal increase of web-based resources stimulates new range of potential services in modern libraries<sup>2</sup>. Furthermore, the price escalation in electronic subscription (*including foreign exchange rates, mailing charges, etc*) is a serious concern. The economic and technological history of the university and research libraries as documented in a report, shown that since 1950s until 1970s annual addition of volumes grew substantially and after 1970s the annual additions remained largely constant or even declined somewhat<sup>3</sup>. Noteworthy is the fact that the expenditures on serials, as a percentage of total expenditures on materials have been increasing sharply. The statistics shows that over the decade 1986-96, American Research Libraries (Washington, DC) are spending approximately 124% more than they were in 1986 and yet get 7% fewer titles<sup>4</sup>. The Indian scenario depicts that roughly around 15% of the foreign subscriptions were dropped<sup>5</sup>. It implies that a remarkable gap exists between the estimated budget and price escalation in journal subscription. Several explanations have been advanced for the price increases. Chressanthis & Chressanthis [1993,1994]<sup>6,7</sup>, as well as Petersen [1992]<sup>8</sup> regress journal prices on a variety of independent variables. They found that there are statistical reasons to believe that

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higher costs, as signaled by the presence of more pages and illustration in journals, contribute to higher prices. In addition, there is some evidence that many publishers behave as monopolists. It is also the case that journals published by the commercial publishers tend to cost more (as making profits) than those published by the non-profit organizations (society or institutional publications). Whatever be the cause – most of the libraries and information centers have forced to decline the number of journal subscriptions due to the rising cost of journals. Interestingly, when the actual journal-cost rises then the subscription prices are increased by publishers, as a result some libraries those are being faced with fixed budgets reduce some subscriptions. Publishers then find that the price charged is not adequate and increase the subscription prices again. This iterative process ultimately terminates in a new equilibrium that is characterized by significant erosion of total subscriptions<sup>9</sup>.

Above discussion reveals the ongoing phenomena – such as Information as a commodity, growth in quantity, new methods of scholarly communications, complex technological requirements, stringent economic circumstances, increased user demand, diminishing budget, and the changing concept of ownership to access are serious concern. However the price escalation in e-resource subscription has great impact on libraries. To encounter with these prevalent situations and the confusing array of pricing-models have resulted the significant growth in number of Library Consortia – an emerging toolkit for libraries to survive... In fact, consortia based subscription of online resources (CBSOR) has proved to be a common strategy among the libraries (having similar interests, purposes and needs) to sustain the buying power in collection development.

Like developed countries, Indian libraries also need to have changed strategies to face the unending fiscal constraints. An encouraging sign is being observed in the recent growth of consortia in Indian libraries. Here an attempt has been made to draw a comprehensive scenario for strategic cooperation among the libraries in India. It also presents the Indian initiatives for consortia formation in local, regional and national levels to achieve the resultant benefits in a real situation. It also discusses several electronic-resources through national and international agencies and even through other consortia (*consortia-of-consortia*) to provide access to its' authorized members. Ultimately, those consortia deals could bring a reasonable solution before the crisis threatens to Indian libraries.

**Understanding Consortia** – Over the decade this concept has emerged as a growing area among the librarians, scholars, and publishers. The '*consortia*' is the plural form of '*consortium*' but is often used in place of singular form. It is derived from the Latin word for '*fellowship*' – the meaning emphasizes coming together of separate groups for a purpose. Synonymously the term is used as alliance, coalition, collaboration, cooperation, partnership, etc. Consortium is a complicated organization. It is 'an association' in the sense that is not commonly understood, i.e. a consortium is not a library association, although some associations of libraries may engage in consortial activities. Again, a consortium is not a regional or state system of public libraries (read as state central library), although such systems may negotiate access to electronic resources on behalf of their constituent institutions. Simply, the consortia run to gamut from relatively *informal cooperatives* founded just to realize economies of scale in purchasing, to highly-organized, centrally-staffed, centrally funded organization; intended to share the resources, and to engage in all manner of collaboration within the member libraries<sup>10</sup>. It has no entity, if there is no common-interest and no member to participate and also the success or failure is very much depends on the members of particular consortium.

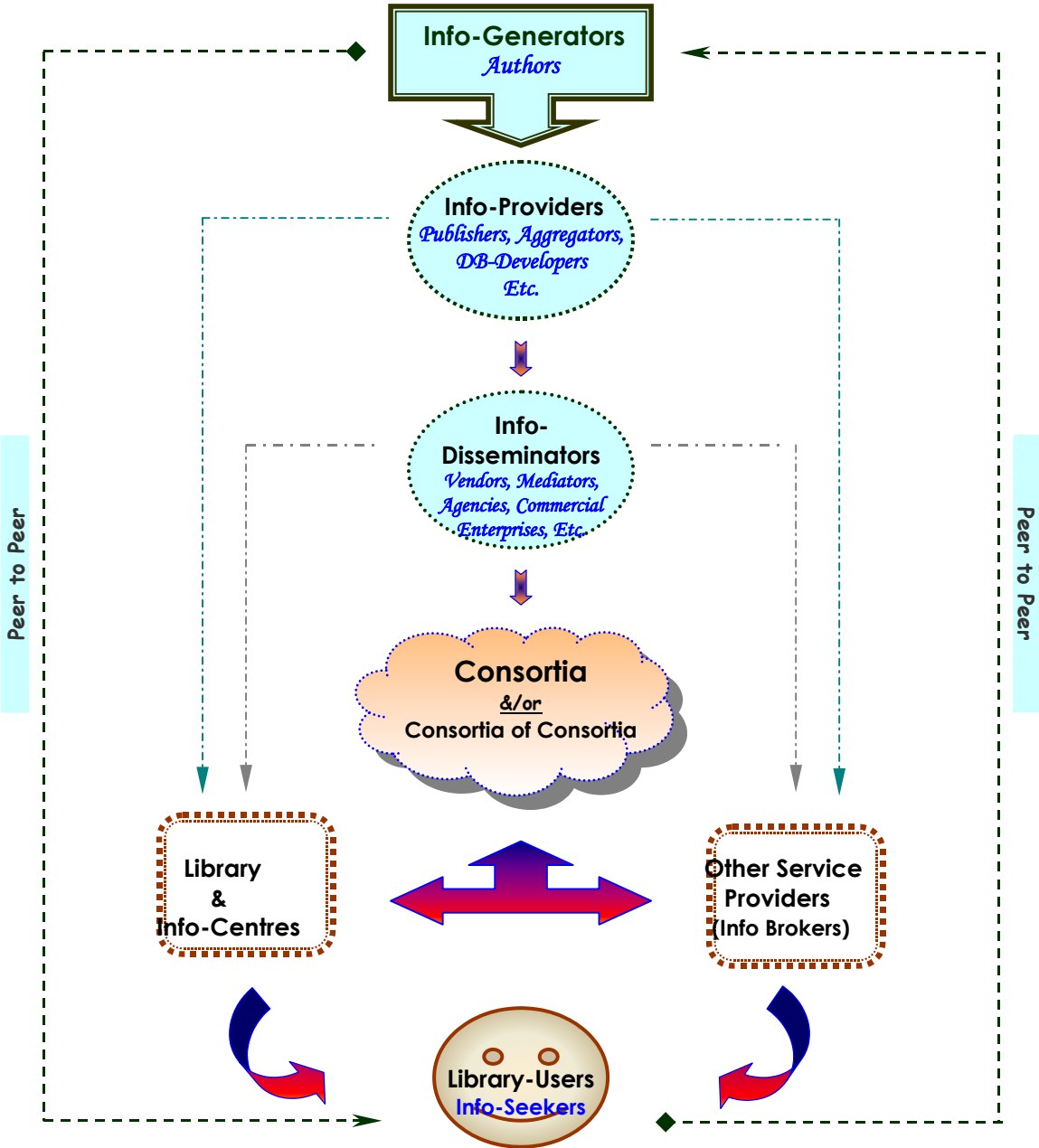
According to the Oxford English Dictionary, consortium means a "temporary cooperation of a number of powers, companies, etc. for a common purpose. It is an association of similar type of organization/institution who are engaged for producing and servicing the common things for providing services for a specific purpose of its users". American Heritage Dictionary (3<sup>rd</sup> ed., 1993) considered the term – "a cooperative arrangement among groups or institutions. More straightforward description of 'library consortia' would be organizations of libraries formed to realize the benefits and opportunities of collaborative activity. Arnold Hirshon, editor of the *Library consortia management journal*, defines library consortium more broadly. He posted this definition on the web discussion forum on library consortia [May 27, 1999 at 13:14:31] --- "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<sup>11</sup>". Therefore the common focus of all definitions are – '*coming together of libraries having common interests and needs, to achieve a common goal that is beyond what an individual library could achieve on its own*'. Here we are intending to use the concept as a group of homogenous libraries to deal with the providers of information services as well as the

partnership of the libraries for sharing those services and resources, as well as the bargaining force to deal with the parent bodies for better allocation for the libraries.

The aim of consortia is to achieve what the members of the group cannot achieve individually, and its purpose is sharing of resources, money, and manpower, etc. It is regarded as an effective strategy to increase the buying power and risk-sharing capacity of individual libraries over the short term. It is also an opportunity to maximize the opportunities for mutual collection development and resource sharing over the long term. A consortium has the ability to share resources without sacrificing the individuality of each member library. As a result, the end-users can reap the benefits of more resources than would be available through one library, while staff can customize the system to meet their individual library's needs. It can be a single agency with multiple locations around the globe, all sharing one name, or the consortia members can retain their own name, but use the name of the consortia to identify that they are the part of a larger, often global, organization. It acts as coordinator for the electronic resource sharing at the national, regional and local levels.

Over the past few years' library consortia have taken a new role in transferring the information from the generators to end-users. Following diagram depicts the information transfer process in a typical consortia environment.

**Latest Twist of Information Flow Through Consortia**



**Genesis & Evolution of Mutual Efforts** – The genesis and evolution of library consortia are not just for the sake of itself. “The historic quest for the great comprehensive collection has been superseded by the need to provide access to collective scholarly resources that no library can afford<sup>12</sup>”. Moreover, the desire to provide users with information to meet their research interests despite a limited budget has always been the prime motivation to librarians. Actually the idea is conceived and evolved from library cooperation that has been in longstanding existence in the form of producing shared/union catalogue, resource sharing by providing inter-library lending services. Therefore, the consortium is another form of cooperation for resource sharing. According to Chartron, the term consortium is derived from the field of economics and refers to the grouping together of different independent companies in order to bring together financial or material resources under a single managing body for the joint performance of specific operations<sup>13</sup>. However, the idea of consortia became more relevant and practical for libraries with the advancement of computer and communication technologies that facilitate the availability of heaps of information accessible from elsewhere. Another evolving desire is to have an availability of the information resources in digital form with attractive interfaces that can stimulate peripheral services like - TOC, alerts, citation, document delivery, etc. based on web technology.

Though the exact date for the first use of the term “library consortium” is not clear but the concept of “consortium” as ‘association or partnership’ has long been a tenet of librarianship, generally encompassed in terms of cooperation, co-ordination and collaboration between, and amongst libraries for the purpose of sharing information resources<sup>14</sup>. However libraries have not used it widely until about the 1980s. In modern usage, the word was first adopted in the seventeenth century in relation to the association and fellowship between husband and wife. In law the term still applies to the husband and wife relationship. The published literature indicates that Melvil Dewey wrote about “library co-operation”, in an issue of the *Library Journal* that appeared in 1886, and a year back E. Mac presented views on “co-operation versus competition” in the same publication (Kopp – 1998, p.7). Furthermore, R. B. Down expressed his futuristic view of library co-operation in a paper “One for all – a historic sketch of library co-operation, 1930-1970” included in the 1939 symposium on “The Library of Tomorrow” organized by the ALA. Nfila & Darko-Ampem traces the history of library consortium from 1960 through 2000 and report that an International Coalition of Library Consortia (ICOLC) was formed in 1997<sup>15</sup>. Recently, the formation of consortia is an attractive solution to many libraries. Even the ‘consortium’ becomes a good word for libraries as it combines the past with the present and the future. Today, electronic consortia have been budding forth in every part of the world in bewildering forms and shapes, and many libraries are already a part of one or more consortia. It is worth noting that the ‘consortia’ is still at its nascent stage in many countries, like India.

**What Makes A Successful Consortium** – A consortium can take many forms depending upon their membership, purposes, funding, governing structures, and the commitment of the participants. Therefore the consortium can realize varying degrees of collaborative success. But, what are the prerequisites to effectiveness in a consortium? What characteristics or practices lead to a ‘successful consortia’? Following issues (at least) have to be taken into consideration for an effective functioning of a successful consortium –

**Culture of Shared Vision & Mission:** Having a “consortium culture”, one that emphasizes common interests, values, visions, and needs is essential. Consortia members should have a high degree of respect for the value of increased collaboration/ shared subscription. Shared vision & mission may, on occasion, results in members having to compromise individual institutional goals to help advance the common good, and to achieve the greater common goal<sup>16</sup>.

**Deep Interest to Obtain Real Benefit:** In an e-mail communication from James Koop to Jordan M. Scepanski it was described – “a set of ground rules requiring each members to come to the table taking a consortial perspective rather than merely considering consortial interests. Individual libraries must feel that they obtain real benefit from their membership in consortia, those benefits that can’t be realized as easily through their own efforts”.

**Constant Support & Commitment:** It has to be mention that the support and commitment, particularly from the parent institutions, is crucial. Members must also ensure that there is constant support throughout all levels of the organization. Staff must receive support to make the partnership successful, and be encouraged to generate a result greater than what any individual institution could do on its own. It is also necessary to assure that “organizational and financial commitments once made, stay made<sup>17</sup>”.

**Authority to Take Action - Take Risk:** Having someone with authority to speak for the library and with the ability to act relatively quickly is a factor of success. A consortium, with institutional head (President/ Director/ VC/ Chief-librarian) directly in its governance, is able to make decisions and take actions at the highest level. Moreover, both consortia and library managers need to possess high grade of 'leadership quality', so that they must not be afraid to lead, to take risks, to commit resources, and to encourage actions.

**Centralized Staffing:** As general rule, more centralized the consortia, more likely to have dedicated staff. However, the availability of staff to initiate, organize, coordinate, and maintain programs is instrumental to success. While some consortia have been able to function without dedicated staff (but volunteers), increasingly the value of having paid employees whose job is basically to stay focused on joint efforts is being recognized<sup>18</sup>. Many large consortia do have full-time staff (though never enough) and a large number rely on volunteers. Truly, it bears a controversy.

**Centralized Funding:** Centralized consortia may have a sponsoring agency to advocate for external funds. These funds can provide assured purchasing power for the consortium. Some people suggest that the availability of pooled or centralized funding is a good idea, to support the subscriptions having limited interests coming from the individual members who desire it. This is essentially important, when publishers/ aggregators do not offer a discount to consortia, in such a situation centralized consortia may serve as the integrator of the publisher.

**Linkage:** "Librarians experienced in forming and managing alliances advise that it is important to build linkages at all staff levels, especially involving the first line staff<sup>19</sup>". Whether member institutions are near to each other or separated by significant distance, opportunities for participants to meet is obvious. Effective staff communication often depends on personal encounters - is an essential ingredient for the mutual efforts. So, careful attention must be given to establishing right combination of face-to-face versus "virtual encounters"<sup>20</sup>.

**Healthy Licensing & Technology Infrastructure:** When forming consortia, a number of licensing issues are involved with publisher/ aggregator, in order to get maximum flexibility in sharing (access) electronic resources as well as to enjoy best pricing practices. Healthy negotiation in relation to the number of simultaneous users, number of participants in the consortium, selection of resources, wider & consistent access, user friendly interface, pricing formulas, etc. can make the success of the consortia. Ultimately, adequate technology infrastructure in support of wide area information access and management in a consortium is the key to success.

All these, if understood and attended to, will greatly facilitate the formation of consortia and thereby lead to an enhanced access to e-resources. Therefore the above-mentioned issues will have the great potential impact on successful consortia.

**Congruity Between Consortia & Publishers –** Libraries join together to form consortia to negotiate prices with the publishers. In fact, over the past few years library consortia have taken on a new role – squeezing better deals out of publishers for electronic licenses (*Nature*, 1999, V.397, p.196). Such a deal of negotiation makes the players congruent to play. It has been observed that the 'consortia' and 'large publishers or aggregators' have a good deal of congruity and easily can work together – as they have their natural affinity. Both of them find tremendous advantages of aggregation. The same technological and economic forces are driving and both are having trouble in building and maintaining the technology infrastructure necessary to deliver electronic products. Through consortia – publishers at one stroke can sale the 'package' of their publications to a 'set of customers', one license agreement, one negotiation, one bill, which are efficient for both. This congruity brings the success of consortia boom. Whereas, a basic incongruity exists between the consortia and small scholarly publishing initiatives (viz. *learned societies & smaller publishers – both profit and nonprofit*); as they like to work with individual libraries, librarians, and faculty members, rather than to consortia. This is because they focus on a single or few electronic journals, are not bundled, and they are unlikely to have the resources to deal with the consortia. Typically, either they charges nominal prices (society publications) or having an unrealistic pricing practice (small publishing products).

**Growth of Library Consortia & Global Motives –** Library consortia, does not have any remarkable history but the consortial arrangements basically started in 1930s to cooperate in administering 'interlibrary loans' as well as 'resource sharing'. It is worth noting that the office of

Education (US) initiated a nationwide study on the growth of the library consortia, conducted by the System Development Corporation (SDC), aiming in view of providing guidance for libraries that are forming or planning to form the consortia. This study identified 125 library consortia (largely focused on academic libraries) founded during a period from 1931 to 1972. Same study reveals that a significant number (92%) of library consortia had been founded after 1960 (n=115), a few were established (n=5) between 1951-'61 whereas only five (n=5) consortia had their beginnings before 1950. Ruth Patrick also noted a similar observation in her introduction to *Guidelines for Library Co-operation*. It would be interesting that, despite the continued growth in number of consortia (in 1980s) some other factors like development of 'mega-consortia' (read as bibliographic utilities) and integrated library systems (read as library automation) enhanced the involvement of libraries into consortial activities. Allen and Hirshon indicated – "Perhaps the most important development for libraries during the current decade has been the move from organizational self-sufficiency to a collaborative survival mode as personified by the growth of library consortia. They emphasized that, IT is now enabling a level of cooperation that is much broader and deeper than ever before"<sup>21</sup>. In 1990s, new types of library consortia began to flourish that exploited the advances in Information Technology. The global development of OCLC<sup>22</sup> in USA is a prime example. It is worth to mention that, in the late 1970s, OCLC became one of the "megaconsortia" deals in the US (and eventually beyond), along with the Research Libraries Group (RLG) and the then Washington Library Network (WLN). Over time the growth of newer consortiums like – Colorado's CARL, Cape's CALICO<sup>23</sup>, Georgia's GALILEO<sup>24</sup>, Illinois's IDAL, Maryland's SAILOR, Missouri's MIRACL<sup>25</sup>, New Zealand's CONZUL, CAUL, MetroNet, North America's CRL, North Carolina's embryonic NCLive, Ohio's OhioLINK<sup>26</sup>, Pennsylvania's PALCI<sup>27</sup>, Portland's PORTALS, Texas's TexShare<sup>28</sup>, Virginia's VIVA<sup>29</sup>, Washington's WRLC<sup>30</sup>, CIC in South Asia, CURL in UK, CALIM<sup>31</sup> in Manchester, Concord in Britain, METROWeb in New York, SERN in Wales, SUNYConnect<sup>32</sup>, etc.... came into existence in the international scenario. All these new organizations developed as strategic partnership to meet the specialized needs of specific types of libraries. So, there are an expanding number of consortia at all levels, from local to international, and even they are beginning to include other types of organizations as well as libraries, museums, hospitals, research groups, and historical societies. Such an initiative was made through EARL (Electronic Access to Resources in Libraries) project, in 1995, aiming in view to demonstrate and extend the ability of public libraries to deliver networked information and knowledge-based services over around 160 local partners and 25 associate partners in Govt. professional, educational and commercial sectors in UK.

Therefore, a rapid growth of consortia has taken place with the changing environment of libraries. Still, we always like to have more changes and always look for the new ways to improve the old techniques in a Darwinian way -- techniques for consortium building -- from 'Single-sector' to 'Multi-sector' and 'Mega consortium'. Perhaps the real sign that library consortia have returned big time is the formation of 'Consortium of Consortia'. For instance, New York consortium of consortia is composed of fourteen member consortia, and it in turns belongs to larger groups such as the ICOLC (*International Coalition of Library Consortia*), formerly named as "OhioLINK"<sup>33</sup>. ICOLC is a semiformal entity (self-organized group) derived from informal contact between leaders of some new and established consortia who eventually decided to come together in a more formal fashion to meet with publishers and to discuss issues of mutual concerns. ICOLC arranged its first formal meeting at St Louis in February 1997 and over fifty individuals from twenty-seven consortia were attended. Basically it comprised of about 150 library consortia (as on September 2000) and represents over 5000 member libraries worldwide. It was originally made up of consortia predominately from the US but it has expanded to include consortia from Canada, UK, Australia, Netherlands, Germany, Israel, and other countries of the world. The Coalition primarily serves its members and higher education institutions by facilitating discussion among consortia on issues of common interest. ICOLC conducts regular meetings to keep members informed about new electronic information resources, pricing practices of electronic providers and vendors, and other issues of importance to consortium directors and their governing boards. Moreover, it likes to promote the consortia deals to obtain "mega-deal".

There are other signs of the recent growth of library consortia. In Ball and Pye's (2000) study on library purchasing consortia, depicts that around 60% of consortia that responded to their survey had become active within past few years<sup>34</sup>. Now, regularly we are having round-tables, workshops, and conferences on consortia, even online web-forum of consortia also exists. Also we have the journal on consortia entitled '*Library Consortia Management – an international journal*'<sup>35</sup> that has been started its publication (MCB Univ. Press, UK) since 1999. This journal provides insights and describes methodologies to improve the negotiations of consortia licenses and to manage the library consortium as an organization. It also covers various emerging issues on consortia and other means. MCB Press also operates an online web forum for further discussion and querying view regarding library consortia. Today publishing houses

also have their consortial advisory boards. One might argue, publishers are themselves forming consortia! – The answer is still found to be due. Most of the larger publishers (OUP, Elsevier, Springer, Wiley, etc.) and learned societies (AMS, IEEE, AEA, etc.) are finding viable solution to sale their e-resources through consortia. Sometimes not just through consortia, but through the groups of layered consortia or multi-consortial deals. All these activity indicates a steady growth of library consortia in real practice.

**Consortia Deals in India** – India does not have a very rich tradition of consortia arrangements or resource sharing amongst libraries. So far the Indian libraries are faced with several environmental circumstances (cultural, economic, political, etc) that are unique to India. But in 1990s, the emerging change in publishing industries and phenomenal increase of web-based resources as well as other organizational imperatives, perhaps forced the Indian libraries to move towards a strategic partnership – as a measure of last resort. Therefore, a few efforts have been made in different levels to provide shared web-based electronic resources amongst the research, academic, and technical libraries in India. Such major initiatives are; J-GATE (JCCC) from Informatics India, IITs-BARC-TIFR Co-operation, TIFR Libraries Consortium, ISI-Library Consortia Deals, SNTD Consortia of LISA, STI Network, FORSA Libraries Consortia, ICAST Consortia, IIM Libraries Consortia, INDEST Consortia, CSIR Consortia, HELINET Consortium, VIC Consortium of ICICI-Knowledge Park, ISRO Libraries Consortia, and INFLIBNET consortium under UGC InfoNet, WBUT Consortium (proposed). Further discussions of these initiatives are being made in the following sections. It is worth to mention here some of the initiatives listed above could not materialize properly and beyond their success. So many explanations are due behind this failure. Dr. Arora has identified a few of the reasons<sup>36</sup>. Still the library professionals in India like to believe that their consortia initiatives seem to have bright future, and hoping to have more members to participate. Therefore, newer initiatives are being organized over the years and steps are being taken to organize many more. Previous experiences will no doubt help in making the idea of consortia more widespread and in their successful implementation.

**A) J-GATE from Informatics India:** J-GATE interface, launched by Informatics India, proposes to serve as an electronic aggregator, third-party gateway and electronic archival facility for several thousand scientific journals. It hosts a large database consisting of bibliographic references and abstracts of journal articles, with links to their full-text articles at the publisher's site. It also provides online full-text access to journals articles, over subscription. In that case User's authentication will be done (based on IP or Password) by the J-GATE interface. Importantly it facilitates and initiates towards the formation of consortia of libraries by bringing subscribers of journals from a given publisher together. For example, Informatics India with initiation from three different educational institutes has successfully developed three consortium models. These are;

- a) SNTD University consortia of Library and Information Science Abstracts (LISA) with other six universities,
- b) FORSA (Forum for Resource Sharing in Astronomy and Astrophysics) consortia of Kluwer E-journal consortia program with five institutes, and
- c) IIMs consortia of 33 Kluwer journals in management sciences.

**B) Agreement of Co-operation Amongst IITs, BARC, & TIFR:** The idea for a consortia of IITs in India was first mooted in 1995 in an annual meeting of IIT Librarians at IIT Bombay for subscribing the printed journals. The librarians of Bhabha Atomic Research Centre (BARC) and Tata Institute of Fundamental Research (TIFR) also participated in the meeting. Although rationalization of periodical subscription in the printed format had limited impact, it did trigger a highly active resource-sharing programme amongst IITs, BARC and TIFR in India. However, in subsequent annual meetings of the IIT Librarians, decision for consortia-based subscription of electronic journals was taken and an "Agreement of Co-operation" was signed to realize the goal. The consortia of libraries of IITs, BARC & TIFR tried working out consortia-based subscription to electronic journals through a number of publishers including Elsevier Science (Science-direct), John wiley (Wiley interscience), Springer Verlag (Link Information Services), and Academic Press (Project Ideal) for the year 2000, but without much success. Still the Initiatives are being taken for the subsequent years, obviously minimizing the negative aspects experienced in previous years.

**C) TIFR Libraries Consortium:** TIFR Library, Mumbai, took a resource sharing initiative in 1999 among the centers (five) and field stations (six) libraries of the 'Institute'. These centers (HBCSE, NCRA, CML, NSBS, & TIFR Bangalore Center for Mathematics) and field stations (HEGRO, GMRT, CRL, RAC, Gravitation Laboratory, & Balloon Facility station) are the constituent part of the TIFR Institute. Initially they started consortia-based subscription from AMS (MathSciNet) & Springer LINK (unlimited access to

250 titles on Comp Sc, Life Sc, Math, Phy & Astro), for limited centers. Subsequently they increased the co-operation and now they have several consortia-based subscription of electronic resources<sup>37</sup>, as given below.

**Overview of TIFR Libraries Consortium**

| Online Resources        | Present Status of the Resources                      | Consortium Started | Consortium Members                                                                  | Impact                                                                                                           |
|-------------------------|------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| AMS MathSciNet          | No of records: 1.9 million approx<br>Archives: 1940+ | 1999 -             | TIFR-Mumbai, CML-Pune, & TIFR-Bangalore Center                                      | Low cost (fee reduction based on Mathematical Activity of the institute)                                         |
| Springer LINK           | No of titles: 250 approx<br>Archives: 1996+          | 2000 -             | TIFR-Mumbai, & All TIFR Centers & Field Stations                                    | More resources & Unlimited access, Price negotiable.                                                             |
| Elsevier Science Direct | No of titles: 1500 approx<br>Archives: 1995+         | 2002 -             | TIFR Mumbai & All TIFR Centers & Field Stations.<br><br>(As part of DAE Consortium) | More resources & unlimited access, access to archives, 5% price cap for print, 42 discounted journals available. |
| BioMedNet               | No of titles: 25<br>Archives: 1995+                  | 2002 -             |                                                                                     | Package subscription & Based on print subscription on negotiation.                                               |
| Cell Press Online       | No of titles: 8<br>Archives: 1996+                   | 2002 -             |                                                                                     | Package subscription & Based on print subscription on negotiation.                                               |

While the TIFR members are experiencing with some common problems (*location, funding, negotiation, access to achieves, cancellation of print subscription*), still they like to believe that their consortia initiatives seem to have bright future, and hoping to have more members to participate.

**D) ISI Library Consortia Deals:** Consortia based subscription of electronic resources in the Indian Statistical Institute (ISI) Library, Kolkata, was first mooted in 1999. Primarily it was initiated by the then Chief Librarian (Mr. C. Bhattacharyya) at a meeting of the Library Committee; in the presence of the member coordinator, National Board of Higher Mathematics, DAE, GOI, held at ISI Library. The initiative came into existence with a consortia-based subscription to MathSciNet database, and the agreement was signed on 29<sup>th</sup> November 1999. By this agreement, the AMS grants a license of access to MathSciNet on web, subject to the terms and conditions agreed between the AMS and participating consortium members. MathSciNet is a comprehensive web accessible database of mathematical literature throughout the world, published by the AMS, Providence, USA. It is worth noting that the ISI is an autonomous institution under the Ministry of Statistics and Programme Implementation, GOI. However the 'Institute' is also functioning as the Eastern Regional Center for NBHM due to its outstanding contribution in mathematical research. Therefore, the ISI Library is partly funded by the NBHM grant. MathSciNet along with its print version (Mathematical Review) is one of the NBHM granted subscriptions. Anyway, the 'MathSciNet Consortium' was established in association with several other institutes, universities, and learned societies from northern and eastern part of the India. Primarily, it was intended to enjoy the pricing benefits and to serve the member institutions, desire for the same subscription but having relatively limited budget. Now it has got much recognition and the arrangement has now received wide spreads. More than 18 members has come under this Consortia, which includes S. N. Bose Institute of Basic Sciences (an organ of CSIR at Kolkata), University of - Calcutta, Jadavpur, Kalyani, North-Bengal, Burdwan, Viswa-Bharati (from West Bengal – east India); Sambalpur, Utkal University (from Orissa); University of Guwahati, Assam, Manipur, Tezpur (from northern part of Bengal), etc and even Calcutta Mathematical Society becomes a constituent member of this consortium. Since 1999, this consortium is still at its existence.

The ISI Library initiated another idea under the chairmanship of Professor D. Dasgupta, which was implemented in 2003. Basically the 'initiative' was considered as a measure of duplicate (even triplicate) journal subscription, simultaneously made by two branch libraries of ISI at Delhi & Bangalore, which made little economic senses and consumed excessive library space. Several discussions were made in this direction. Ultimately an arrangement of consortia-based subscription to Science-Direct (a division of Reed Elsevier Inc) was made with the Elsevier group of publishers, and a "License Agreement" was signed between the two parties. The agreement offers, a platform fee (9% of the print cost) and content fee (based on print subscription), so as to provide unlimited access to more than 1500 titles from Elsevier group of publishers (ES, AP, NH, Pergamon, Excerpta Medica, etc.) with excellent search facility and access to archives. It included online full-text access to Elsevier journals over print subscriptions (more than 86) made by any of the three centers of ISI along with the complementary access to other centres. Additionally it provides online-full-text access to 48 journals (as selected by ISI faculty members from the Elsevier group of titles) in order to realize the amount of duplicated/ triplicated print subscriptions within three centers. Access to full-text journals is equally applicable to all the centers as mentioned above and in all the cases (print & exchange) back-files are available since 1995. Even the agreement allowed limited download of full-text articles for academic use. This negotiation offers a maximum 6% price cap for print subscription for subsequent years, up to 2005. This license was renewed in the year 2006 with modest benefits.



ISI Library has another Consortia-based subscription to EconLit database (electronic version of the *Journal of Economic Literature*, published by the American Economic Association), which is started in 2003. ISI-Delhi Centre and Assam University, Guahawati University, and Tezpur University are the constituent members of this consortium. Users can simultaneously access (one/ two) the 'Database' from their sites using authorization & password. This consortium did not have much recognition and coalition stopped in the year 2005. Meanwhile, different publishing groups made several demonstrations but the consortia subscriptions are not of immediate interest to ISI. All the above-mentioned initiatives will have great potential impact on ISI library services for the foreseeable future. However, Consortia subscription for AIP, Wiley-Interscience, ACM Portal, SIAM Journals, JCCC, PubMed, Emerald publications, etc is yet to be initiated by the ISI Library. Recently the ISI Library has become a member of the INDEST for the subscription of IEEE's Electronic Library (IEL) and also formed a consortium for Springer-Link among the three centers. Importantly, the ISI Library is required to gear up the consortia based subscription of electronic resources and should pursue for the induction to possible members of ISI consortia initiatives.

**E) STI Network for resource sharing amongst S&T libraries:** The proposal of formation of 'STI Network' was initiated at a meeting of the heads of major science and technology libraries held at the Defence Scientific Information & Documentation Centre (DESIDOC), in may 1999. The 'STI Network' has 20 major libraries in India as signatory to its Memorandum of Understanding (MoU) with a provision to induct additional members. Resource sharing in all modes and subscription to electronic resources as consortia of libraries are major objectives of the STI Network. The STI Network is an initiative, which is still lying dormant at this stage.

**F) Forum for Resource Sharing in Astronomy & Astrophysics (FORSA)<sup>38</sup>:** It became into existence in the year 1982, for sharing the resources available in astronomy libraries in the country. The list of institutions are the members of this forum, viz; Indian Institute of Astrophysics (IIA)-Bangalore, Inter University Centre for Astronomy & Astrophysics (IUCAA)-Pune, National Centre for Radio Astrophysics (NCRA)-Pune, Physical Research Laboratory (PRL)-Ahmedabad, Raman Research Institute (RRI)-Bangalore, Tata Institute of Fundamental Research (TIFR)-Mumbai, UP State Observatory-Nainital, and Nizamiah Observatory-Hyderabad, It has been reported that the FORSA Consortia to become a member of ICOLC. IIA Library will be taking up the issue.

The FORSA members concluded a consortium deal with Kluwer publishers for cross e-access to 23 Astronomy journals for the last two years. Electronic access to "Nature" journal is also being available through this Consortium deal, for the last one year. The Consortium offers for the AIP journals and MNRAS (Blackwell) is being considered by the FORSA members for the year 2004. Few member libraries of FORSA have merged their books catalogue using LIBSYS software, and the access to this merged database is available at, <http://www.rri.res.in/htmls/library/forsadb.html>

FORSA National and International activity includes, Round table on Consortia Models in India, Workshop on Consortia, Conference on FORSA at LISA IV, etc. FORSA meets in a regular basis and recent meeting held during the Workshop on Forging Collaborative Partnerships: Consortium of Libraries of DAE Institutions and FORSA Member Libraries Meet, July 28-30, 2003 at TIFR Mumbai. It has been reported that following discussions were made during this meeting: Consortia subscriptions for IOP, MNRAS, Science, Taylor & Francis, Springer Link, John Wiley are not of immediate interest to FORSA. However, Consortia subscription for Nature & AIP is being considered. It was also decided that additional member institute libraries could be invited to join FORSA provided an Astronomy research group exists in the institute.

**G) IIM Libraries Consortia<sup>39</sup>:** Indian Institutes of Management are premier national business management education set up by the legislation of GOI. The major objective of the institutions is to train young graduates to become professional managers. To achieve the objective each IIM set up libraries to support teaching, learning, research and other consultancy activities of the institutes, now all of them are fully modernized. The concept of IIM Library Consortium has been floated a few years back, when the IIMs Librarians felt to interact on the possible sharing of their subscribed digital resources, and a pilot study was conducted to identify the currently subscribed digital resources among the IIMs. Subsequently the IIMs Directors, in a meeting held at IIMK during August 2001 approved the formation of the 'Consortia' and encouraged the librarians to actively participate for mutual benefit.

Accordingly the Librarians jointly identified the consolidated electronic resources, which will be of great relevance to the IIM community and invited the major publishers/ vendors of databases, journals and other value added service providers. Naturally the publishers/ vendors enthusiastically responded to the

invitation, even they made their presentation along with their competitive offers for the consortia. In some cases they offered at drastically reduced price (as much as 40-45% discount) provided all six IIMs subscribe to the same resources, viz. ABI/INFORM-fulltext, Business Sources Premier, Gale Products, Global Marketing Information Database, etc) and other resources (viz. EBSCO-BSE, EconLit-Ovid, CAPITALINE, INDIA INFORMER, etc) were priced in a rational way.

Therefore, being a closed proposition, IIM Consortia identified two areas for partnership viz, developing the collection on shared basis, and developing the services exploiting such a collection. The consortia envisaged the operating principle of decentralized acquisition, decentralized processing and centralized utilization/ access. In reality, they successfully executed a few shared acquisition services viz, Science Direct of Elsevier, John Wiley electronic journals, and Kluwer electronic journals, Proquest and EBSCO services. More areas are identified for partnership. Now the IIM Library consortia have their success for partnership.

**H) INDEST Consortium<sup>40</sup>:** The Ministry of Human Resource Development (MHRD) has set-up the “*Indian National Digital Library in Science and Technology (INDEST) Consortium*”, as per the recommendations of expert group headed by Prof Balakrishnan of IISc. It was initiated for “Consortia-based Subscription to Electronic Resources for Technical Education System in India”. This consortium is available in three models. Presently all the IIT's, IISc, NITs, IIMs and most of the Regional Engineering colleges are its members. The consortium being an open-ended proposition, welcomes any private/ government-funded institutions to join it on their own for sharing maximum benefits it offers in terms of lower subscription rates and better terms of agreement with the publishers. The consortium will charge nominal annual fee for its services.

The Consortium operates through its Headquarters set-up at the IIT Delhi. The Ministry of Human Resource Development (MHRD) provides funds required for operation of the consortium. The consortium headquarters function under a National Steering Committee (Dr. Jagdish Arora -convener) for inter-institutional coordination and for taking decisions on policy issues under the overall policy direction of the Government of India. The Ministry has also set-up a National Review Committee for the INDEST Consortium. The National Review Committee is responsible for overall policy, monitoring and coordination with UGC and AICTE for this Consortium. It offers a good amount of electronic resources, such as; IEL, Elsevier Science-direct, Springer LINK, AST Plus, ABI/ Inform, ACM digital library, ASCE journals, ASME journals, COMPENDEX on EI Village, INSPEC, SciFinder Scholar, MathSciNet, Web of Science, J-GATE (JCCC), etc.

The INDEST consortium members includes the following:

- **MHRD funded 38 Core Group of Member institutions:** IITs and IISc (eight institutions); NITs, ISM, SLIET and NERIST (twenty institutions); IIITs and PEC Chandigarh (three institutions); IIMs, NITIE and IIITM (eight institutions)
- **Members with Financial Support from the AICTE:** The AICTE has identified 60 Government Engineering colleges or technical institutions that offer programmes at postgraduate level. These institutions are being given access to a number of electronic resources including IEL Online Library, ASCE Journals, ASME Journals, Applied Science and Technology Plus (ASTP) and J-GATE for Engineering and Technology (JET).
- **Other Engineering Colleges and Institutions:** The consortium, invites AICTE-accredited and UGC-affiliated institutions to join hands with the leading Engineering and Technological Institutions in India. 15 other engineering colleges and institutions have already joined the consortium on their own.

Therefore, the INDEST Consortium is the most ambitious initiative taken so far in the country. The benefit of consortia-based subscription to electronic resources is not confined to 38 major technological institutions in the country but is also extended to all AICTE-accredited and UGC-affiliated institutions. 15 engineering colleges and institutions have already joined the consortium on their own. For further details, click at Join.

**I) CSIR Consortia:** It is a consortium for CSIR Laboratories for Accessing e-journals. The Council of Scientific and Industrial Research (CSIR) in India has 40 scientific laboratories involved in basic and applied research in various disciplines. Many of the laboratories have well equipped libraries, and some of them act as the main information centres in different subjects functioning as consultant libraries at the national level. Access to electronic journals through the use of state-of-the art technology is possible in many of the libraries belonging to these laboratories. Each of the laboratories have a well established

library or documentation centre that is also backed up with strategic information support from the National Institute of Science Communication and Information Resource (NISCAIR), a constituent establishment of CSIR formed with the merger of INSDOC and NISCOM.

To augment CSIR research and development activities, NISCAIR implemented agency for the process of providing access to globally available Electronic Journals to entire S&T staff of CSIR and its constituent units through a consortia approach. As a first step, in recent past INSCAIR on behalf of CSIR has entered into an agreement with M/s. Elsevier Science to access its odd 1,500 e-journals and further intends to strengthen its information resource base by subscribing e-access of more and more journals published globally. CSIR consortium extended its access by creating appropriate agreements on consortium basis with the other providers of E-journals.

**J) ICAST Consortia Initiative:** The Information Centre for Aerospace Science and Technology (ICAST) is an organ of the National Aerospace Laboratories, a CSIR Laboratory located at Bangalore. ICAST is established in the year 1959, caters to the information requirements of the Indian aerospace community in particular and the engineering and technical personnel in general - thus fully justifying its recognition as a National Information Centre by UNESCO, DSIR and AR&DB. ICAST is well known for its aerospace collections of books, journals, and specifically technical reports from NASA, DLR, ONERA, NLR, ARL and UTIAS. It is acting as repository centre in the field of aerospace and related areas (aeronautics, aerospace engineering, computer science, composites, metallurgy, mechanical engineering, material science, mathematics, etc.) for providing specialized information services using various sources of information in electronic/print media and adopting developments in Information Technology for making services much more effective, exhaustive, dynamic and almost instantaneous. The Centre also offers online, CD-ROM and Internet based literature search services and is equipped with the necessary infrastructure and trained manpower. The centre has created (during 1998-1999) a portal called 'AeroInfo' (<http://www.aeroinfo.org.in>) – a worldwide gateway for Aerospace Science & Technology, the first of its kind in the country, which serves as single point information search facility for the entire aerospace community in the world in general and India in particular. This site gives direct links to Science Direct, J-Gate, and Annual Reviews of Fluid Mechanics and Materials Science. It also gives access to the Union Catalogues of holdings of NAL, IISc, RRI and the union list of current journals (from 1997 onwards) subscribed in 16 major Aerospace & CSIR libraries have initially been put up on this site. [ICAST: <http://www.icast.org.in>]

Campus-wide access to international databases in Aerospace and Material Science (CoMSAC): ICAST took the initiative to form a 'Consortia' of like-minded libraries to provide seamless and cost-effective web-based access to renowned international databases hosted by the Internet Database Service of Cambridge Scientific Abstracts (IDS/CSA). Scientists from all the three campuses at Belur, Kodihalli, and C-CADD/ CMMACS could access 12 bibliographic databases round the clock. [<http://www.cmmacs.ernet.in/nal/picts/divar01/icaar01.htm> ]

Networking of Aerospace Libraries: ICAST organized a one-day meeting of Heads of Aerospace Libraries on 7th May 2002 at Director's Conference Hall. More than 30 participants from various organizations including ISAC, HAL, ADA, ADE, CEMILAC, GTRE, VSSC, SHAR Centre, NRSA, SAC, MCF, IAM, RRI etc. attended the meeting. Mr. I.R.N. Goudar, Head, ICAST welcomed the gathering and explained the objective of meeting. He stressed that the contemporary IT developments and emerging knowledge-bases must be exploited for the benefit of aerospace community. Dr. T.S. Prahlad (NAL's former Director) in his presidential remarks said that collections must be strengthened based on the thrust areas of the institution concerned. The first technical session featured four brief presentations by Dr. M.S. Sridhar, ISAC on 'Consortia efforts in ISRO Libraries', Dr. T.N. Prakash, ADA on 'The Role of Aerospace Information Panel (AIP of AR&DB)', Dr. T.B. Rajashekar, NCSI spoke on 'Leveraging Electronic Information in Aerospace Libraries' while Mr. I.R.N. Goudar, NAL spoke on 'Access to Aerospace Information: The role of Portal 'AeroInfo''. [Source: NAL Information Pasteboard, No: IP 504 /6 - 12 May 2002 Visited at the URL: <http://www.cmmacs.ernet.in/nal/pages/ipmay02.htm>]

**K) ISRO LIBRARIES CONSORTIA:** The Indian space efforts started in sixties with the establishment of Thumba Equatorial Rocket Launching Station. Thereafter, the Indian Space Research Organization (ISRO) was established in August 1969 with the objective to develop space technology and its application to various national tasks. Over the years, Dept. of Space (DOS), Govt of India has built up a strong research, development and technology base with necessary infrastructure along with the library facilities for implementing the space programme through various space centres, viz. ISAC, VSSC, SHAR, SAC, LPSC, ILHP, DECU, ISTRAC, MCF, IISU, NRSA, PRL, NFRF, RRSSC, NE-SAC, Etc. [Source:

Indian Space Research Organization: Visited on 20<sup>th</sup> September, 2004, at <http://www.isro.org/> ] All these centers are equipped with a good Library, which plays a vital role by providing various sources of information to materialize the activities of those centers. In recent past, like other libraries, ISRO libraries have faced the unending fiscal constraints and several attempts/ strategies have been made in this direction. They are combating the fiscal constraints by canceling the costly and less used journals and are trying for cooperative acquisition in the way of collective decision making. As many as 252 costly journals (>\$ 500) worth Rs. 50 lakhs were cancelled by ISRO Satellite Centre (ISAC) library during 1989-2002<sup>41</sup>. Therefore, they realized to make the savings, taking the advantage of changed pricing policies of publishers (i.e. confessional rate for multiple copy subscriptions & complementary e-access to other sister organizations) coupled with the availability of new media of information resources like e-journals, CD-ROM, etc. Efforts were put into implement uniform library management software to enable remote networked access of holdings of about a dozen libraries within the ISRO.

In view of the above purpose and with the encouragement of top-level management an effort is made to develop a practical agenda for their entire group of libraries to increase the savings, without any reduction in services to the users. They have raised the issues on – costly journal subscriptions, combined/ membership subscriptions, package deals, non-overlapping subscription to exceptionally priced resources, sharing complementary access to e-journals, standing orders, etc. Assumed the responsibility of main centre, ISAC-Library circulated the agenda among librarians of major centres during April 2001 seeking specific data about journals, CD-ROM databases, package deals, and standing orders. Using ABC analysis on the data initially gathered from four major libraries (ISAC, VSSC, SAC, and SHAR) insisted to initiate the 'ISRO Libraries Consortia'. Then a separate request letter was sent to other ISRO libraries to ensure the benefits of this Consortium and/or combined subscription prices. Data processing result depicted that four major centre libraries put together but independently spend about Rs. 482 lakhs on acquisition of their library materials; over a total budget of 650 lakhs for all ISRO libraries. Again, the author is intended to disclose the information about the costly journal (>\$500) subscriptions among ten ISRO libraries put together have 670 titles (336 unique) worth Rs. 298 lakhs. It is interesting that the extent of overlapping subscription to costly journals as 52% i.e. Rs. 152 lakhs. Further, the overlapping cost for other materials (AIAA & IEEE conference papers, CD-ROM databases) is about 70 lakhs<sup>42</sup>.

Finally it was decided to have a meeting of four major centre librarians to decide on elimination of duplication and to share costly resources wherever possible, exchange of benefits of complementary access to e-journals to save on print subscriptions, opt for combined subscription on consortia price, and to explore other ways of sharing costly resources. So, the ISRO Libraries were felt to gear up more creative resource sharing among the centres as well as to other libraries in order to effectively face the budget crunch and increased prices of information resources. They found a practical and useful solution through cooperative acquisition and/or consortia approach. The Consortia initiative by ISRO libraries is expected to result in savings almost worth Rs. 41 lakhs per year. They are expecting that once e-journals will be accepted to the users they will lead to huge savings through consortia. They are experiencing with the common barriers like ownership paradigm, autonomy for individual libraries, fear from centralization/ status, egoistic barriers, etc. that are required to be effectively overcome<sup>43</sup>. Still they like to believe that ISRO Consortia initiative seem to have bright future.

**Consortia Resources:** CD-ROM Databases – *Aerospace Database, Ei-Compendex Database, INSPEC on Disc, Ulrich+, Books in Print on Disc, NTIS (Silver-Platter & Dialog)*, AIAA on CD, etc. E-Journals – *IEL (IEEE's Electronic Library)*, *Online full-text access to other few costly journals*.

**L) INFLIBNET Consortium (under UGC InfoNet)<sup>44</sup>:** Inlibnet under UGC Infonet is planning to have a consortium of e-journal subscriptions among the university libraries. It is being planned to provide this service through higher bandwidth of Internet connection, which will be given to University libraries in a phased manner. The e-subscription initiative under UGC-Infonet is expected to trigger remarkable increase in sharing of both print and electronic resources amongst university libraries through one of the gateway portal being identified. The gateway portals provide customized solution not only to access the resource online but also access resources of other libraries participating in the consortium. The consortium headquarter (INFLIBNET) is assigned to function as a resource center with an aim to cater to the needs of its members for resources not accessible to them in electronic media or are available in print media. INFLIBNET center will administer, monitor and fund the e-access-only scheme through a single nodal agency. Special meetings were convened by Dr T A V Murthy (Director of INFLIBNET) at seven different places of India to inform about the e-subscription initiative under UGC InfoNet and to convince the librarians for saving the expenditure. A comprehensive list of journals prepared at the headquarter

and was sent to 70 libraries to get feedback from the university librarians for selection of a core list of e-journals and databases in all major disciplines. Naturally the university librarians appreciated the effort in providing e-access to scholarly literature. Ultimately the feedback yielded a list of requirements proposed for electronic subscription, as given below;

- a) Abstracting & Indexing databases: Chemical Abstracts – using Sci-Finder [10 Universities], Chemical Abstracts – using STN International [All Universities],
- b) Full-Text Electronic Resources: Titles of American Chemical Society, Royal Society of Chemistry, Institute of Physics, and Nature [ All from 50 Universities]
- c) Resources under active consideration: Biological Abstracts [50 Univ], CUP titles [50 Univ], MathSciNet [75 Univ], J-Store [50 Univ], Gateway Portal Access-GIST [200 Univ]

Therefore, this gateway portals will have a great impact on around 200 university libraries to access full-text electronic resources. The consortia already proposed to subscribed the selected titles from other publishers, viz. AIP, American Physical Society, Elsevier group, Springer Verlag, Blackwell, Kluwer Academic, Taylor & Francis, OUP, John Wiley, etc. Even the list, based on the requirement of universities is already prepared and will be sent to these publishers for their revised offer. Negotiation and decision on these journals will take place in a couple of months.

**M) HELINET Consortium:** Health Sciences Library & Information Network (HELINET) was initiated by the Rajiv Gandhi University of Health Sciences (RGUHS), Bangalore, Karnataka. It is the first medical library consortium in the country, launched on March 15<sup>th</sup> 2003. It was set up with an objective of networking the college-libraries affiliated to the RGUHS, to promote resource sharing, especially with reference to international medical journals and databases. In view of a survey, conducted in early 2002, the colleges of RGUHS were spending enormous amount of money to get only about 150 journals each, and even in those 150, many were duplicates. This spurred the need for reducing the cost while making the core medical journals more affordable and easily accessible. Thus HELINET was born with twin objectives – Networking the Libraries in the colleges affiliated to the university to promote resource sharing, and to move these libraries gradually to digital main-stream. HELINET's mission is to network all the libraries under RGUHS for minimizing the cost of acquisition and maintenance of learning resources and maximizing their utilization, among the faculty, students and researchers the colleges and institutions affiliated to the University<sup>45</sup>.

Under the HELINET scheme, the member colleges can get access to around 700 scholarly, international biomedical journals, from 24 leading publishers, at about one-third the price of their print subscription. It also provides the useful links to e-books and other reference sources in Biomedicine. Moreover, the member colleges can get all time access to the current journals as well as archives i.e. the back-volumes of journals for a period of 7-10 years. The University has already spent Rs. 2 crores for establishing the consortium on a cooperative e-access model and has set up digital library infrastructure for managing and providing access to e-content.

For the purpose, HELINET Consortium sources e-journals from multiple aggregators. For full-text it is subscribing the Elsevier's Science-Direct, OVID Biomedical Collection, Annual Review - Biomedical Suite, etc., and for bibliographic sources it hosts the J-Gate, and J-Gate Custom Content for Consortia (JCCC) from Informatics India Ltd.

**JCCC-HELINET:** JCCC is J-Gate Custom Content for a group of homogeneous consortia members. JCCC-HELINET is an extension of JCCC, which is a customized e-journals access gateway and database solution for the HELINET Consortium, Bangalore. It provides a common gateway (one-point access) to e-journals subscribed by the consortium and facilitates the common search interface for all the participating members of the 'Consortium'. JCCC@HELINET acts a comprehensive database of journal articles published in the journals subscribed by all medical colleges of RGUHS (about 650+ unique titles) and available online. The service offers the following facilities and benefits to users, i.e, Common access to Table of Content (TOC), abstracts, and full-text articles. Contents are mirrors in the server of each participating consortia member. Automated e-mail request for photocopies can be sent from one consortia member to another. Users can create their own alert profiles for latest issues using e-mail, denoted as 'MyTOC'. [Source: Informatics India Ltd.: JCCC-HELINET. Visit the URL: <http://203.200.41.71/helinet/about/about.asp>]

Currently 25 member participants are enjoying the sharing benefits in terms of lower subscription rates and better terms of agreement with the publishers. Moreover, the consortium would also provide technical help and arrange for in-house training for optimal usage of resources subscribed.

**N) VIC CONSORTIUM (ICICI-KP):** Virtual Information Centre (VIC) is a unique facility offered by ICICI Knowledge Park (IKP) for providing better information services to the Research & Development Sectors. VIC has been supported by funds, commitment and involvement from NISSAT of DSIR, Government of India and completed the two-year project in March 2004. VIC provides wide range of information services with the cooperation of several libraries & information centers that form the IKP's Knowledge Network. VIC was set up with an objective of sharing the e-resources and ideas among the Park talents and member organizations. Objectivity it provides fast and reliable access to national and international S&T information resources through a common gateway, and strengthening the resource base available in the country. [Source: <http://www.vic-ikp.info/> or <http://www.vic-ikp.info/innerfiles/vic.asp#whatisvic> ]

VIC acts as an electronic platform for fast and reliable access to information and interaction among industry, academia and public research institutions in Science & Technology. It links to digital resources of member partners and facilitates widespread library and literature search facilities. A web interface for virtual meeting, discussion and sharing of ideas is planned. Thrust areas in initial stage are Biotechnology, Pharmaceuticals, Chemical, New materials, IT/ Telecom, etc. VIC has installed seven databases exclusively for the use of VIC members – viz, *Directory of Translators in India*, *Directory of IPR Agents in India*, *Email directory of Indian scientists*, *K-Library (Database of Internet Resources in Biotech, Drugs, IT & telecom areas)*, *Directory of Venture Capital Firms in India*, *NAFEN Database*, *Database of Sophisticated Instruments & Facilities*.

VIC offers various range of information services to it's three groups of users – a) Professionals and Research Scholars of more than 12 resident companies at the Park, b) Premier Institutions of repute (approx 24) who are member-partners of the IKP Knowledge Network, and c) Registered users by payment of Rs 5000 per year; such as R&D Institutions (Govt & Private), Manufacturing companies, Institutes of higher learning, Small scale industries, Consultants & Individuals. Registered users can avail of a host of services at concessional rates VIC is the member of various consortia, Library networks and libraries. [Source: <http://jccc-vic.informindia.co.in/> ]

**JCCC@VIC:** It is a NISSAT-Funded initiative to promote resource sharing. Informatics launched this organized resource-sharing consortium, using JCCC as the basis, on 1st July 2002. It is basically a common platform of journal literatures subscribed by the members of VIC Consortium.

A challenge that confronted ICICI-KP was providing access to its users in the park for research information in several diverse areas from biotechnology to information technology. It found a solution to this challenge in the concept of JCCC, which was undergoing development during early 2002. Encouraged and funded by NISSAT, VIC at ICICI-KP used the concept of JCCC to promote and translate this concept into a "networked resource sharing consortia for journals". Seven institutions including ICICI-KP that currently participate in this consortium are:

- Virtual Information Center (VIC), ICICI Knowledge Park, Hyderabad - (Consortium Leader)
- University of Hyderabad
- Indian Institute of Chemical Technology, Hyderabad
- Center for Cellular and Molecular Biology, Hyderabad
- National Institute of Nutrition, Hyderabad
- ICRISAT, Hyderabad
- National Chemical Laboratory, Pune

The consortium selected 500+ journal titles subscribed by one or several of the members. JCCC is a central database and gateway for the bibliographic content of these 500+ journals, updated regularly. It is a simple concept with a complex design behind. The value that JCCC provides today to its consortium members can be best explained in the following example providing multiple scenarios for resource sharing.

JCCC-VIC helps the users in obtaining the full-text articles in the way of showing either 'PDF online button' or 'hardcopy button. Online button indicates that user's library has an online subscription/ access

rights. User may click on this button to fetch the article instantly to view on his screen. On the other hand, when the User clicks on hardcopy button, an e-mail request is triggered directly to the library that is designated for document delivery. The member-library in the consortium sends the photocopy of the article to the user from its print collection. [Source: T B Rajashekar: J-Gate - an Indian eJournal Portal Initiative for international Journals. <http://itt.nissat.tripod.com/itt02034/jgate.htm>]

It is necessary to say that the ICICI Knowledge Park is a very sophisticated international research infrastructure promoted jointly by Andhra Pradesh Government, ICICI and the Department of Scientific and Industrial Research (DSIR). In a official release, Andhra Pradesh Chief Minister Mr. N Chandrababu Naidu said the state government was working untiringly towards the development of bio-technology, as a frontier technology which had the potential to provide very substantial benefits to the society in a wide range of sectors. Naidu also agreed to release Rs 5 crore for the upgradation of ICICI Knowledge Park Phase III and IV. [Source: PTI [Sunday, July 27, 2003, 07:18:26 PM] from Hyderabad: AP Govt. working towards development of Biotech. Visit the URL at: <http://economictimes.indiatimes.com/cms.dll/html/uncomp/articleshow?msid=97802> ]

**Supportive Measures for North East India** – North Eastern region is popularly known as the land of ‘seven sisters’ of India. It comprises of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura. Geographically the region is isolated from the rest part of the country. The entire region represents a unique set of topographical, climatic, economic, social and cultural conditions, which differs vastly from the mainland. Despite the fact that the per-capita plan outlays of the NE States have, over a period of time, been considerably higher than the national average; the states still rank significantly below the national average in so far as the development of infrastructure is concerned. In terms of per capita State Domestic Product or other development indices, such as power, length of roads or hospitals beds, library facilities, etc. the NE ranks well below the national average. Though the literacy rate (68.64%) are slightly higher in contrast to national average of 65.38%, as per 2001 census provisional data. However, underdeveloped economic standard of the peoples, insufficient fund for libraries, and cultural gap among the natives, are some of the reasons for which the libraries of North East region are not placed in a reasonable position, till today. Library networking in this region is in embryonic stage, even the telecommunication and Internet facilities have not been developed in a proper way. In fact, the success of information-oriented infrastructure depends on the existence of a powerful telecommunication network. Libraries and library professionals of this region are slowly adjusting with the changes being made by Information Technology.

A survey of the libraries in seven states of North-East India has shown that there are high levels of ‘computer anxiety’<sup>δ</sup>, among the library professionals working in North East area<sup>46</sup>. The survey was conducted in 2003, to measure the attitudes of library professionals working in NE region towards IT adoption, based on the tested scales. A matrix of 103 observations was considered against 81 variables. Finally, the surveyors (Saraf & Temjen) suggested for cultivating positive attitudes of library professionals towards IT that can be achieved through in-service training, infrastructural facilities, regular courses in IT, sharing human resources, and IT culture among library professionals. Recently the region is picking up the adoption of information technology in libraries. In a study Hangsing, et al. summarized the present IT status of the university libraries (including IIT Guwahati) in NE region<sup>47</sup>. They have mentioned several factors in describing the exact status of those libraries – such as, number of computers in each library, library software used, number of database records created, availability of LAN, Internet connection type, IT trained staff, consortia plans, etc.

So, the above discussion indicates that the libraries in the north-east India will take much time to reach a steady state for developing a sound information infrastructure and online information services. Though,

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<sup>δ</sup> ‘Computer Anxiety’ has been associated with library professionals in recent literature to describe their attitude and behaviour towards integration of IT in a modern library. It can also be defined as ‘techno stress’ or ‘computer phobia’ (Weil, et al. 1987). Sievert, et al. (1988) identified several factors that influence computer anxiety in library staff. The principal determinants were age, educational qualification, working experience, and familiarity with a computer\*. Su (1993) showed that ‘working experience’ does not have any significance in determining attitude towards computers and computer anxiety; but ‘designation’ is an important variable in determining attitude towards computer and IT\*\*.

\* Sievert, M. E. et al. [1988]: *Investigating Computer Anxiety in an academic library. Information Technology & Libraries*, p.243-152

\*\* Su, S [1993]: *Attitudes of academic library professionals towards computer-based systems in Taiwan. Journal of Librarianship & Information Science*, V.5 (3), p.143-152.

some of the libraries in this region are coming up to be at par with the mainstream. The modalities of resource sharing will go a long way in performing library functions in NE India on a comprehensive resource base with a view to satisfying the ever increasing needs of the readers. Moreover, there should have collective efforts of the librarians, authorities of the institutions, central/ state governments, and other financial grant sanctioning authorities like UGC, ICSSR, NISSAT for toning up the condition of the libraries of in the north eastern region of India. No doubt, the spirit of cooperation will serve a long way in catering the educational needs of numerous academicians and researchers.

*In this connection, various supportive measures have been taken place by the Central/State Governments, Learned Institutes, and other Stakeholders of India for balanced development of the NE Region – Some of them are as follows;*

- A. Ministry of Development of North Eastern Region (DONER):** The Govt. of India has set up a special ministry to accelerate the pace of socio-economic development in the North Eastern Region. It was set up in September 2001 to act as the nodal department of the Central Government to deal with all matters pertaining to the eight states (including Sikkim) of North-East.
- B. Non-Lapsable Central Pool of Resources (NLCPR)<sup>48</sup>:** As the benefits of economic development have yet to steadily accrue to the Region, efforts have been initiated in this direction in recent past in various ways. In October 1996, the then Prime Minister announced 'New Initiatives for NE Region' and stipulated that at least 10% of the Budget(s) of the Central Ministries/ Department will be earmarked for the development of NE States. A preliminary exercise was undertaken by the Planning Commission and thereafter explored the possibility of creating 'Central Pool of Resources' for the NE out of the unspent amount of stipulated 10% of GBS to support infrastructure development projects in the North East. This 'Pool' meant for funding development projects in these States, will fill the resource gap in creation of new infrastructure, which is a top priority. The proposal was mooted by the Planning Commission and the Cabinet approved the approach on 15<sup>th</sup> December, Even the Prime Minister convened a meeting of the Chief Ministers of the NE States on 8<sup>th</sup> May 1998 favouring the NLCPR. The paragraph from the PM speech reads as follows; *"We are examining the feasibility of creating a Central Pool of Resources (CPR) which, in turn, will give critical additional support for an accelerated implementation of projects in the entire region. This pool, created from the unspent balance of the allocated expenditure of 10% of the budgets of the concerned Central Ministries could well amount to around Rs.1500 crore annually..."* This commitment of the Government was also reflected in the speech of Finance Minister while presented the union budget for the year 1998-99. Furthermore, as part of the budget proposals 1998-99, it was announced that: *"It has been decided that all Central Ministries/ Department should earmark at least 10% of their budget for specific programme of development in the North Eastern Region..."* In Budget 1998-99, such provision was accessed to be Rs.1600 crore.
- C. North Eastern Council (NEC at Shillong)<sup>49</sup>:** The North Eastern Council is a nodal agency for the economic & social development of the North Eastern Region. It was constituted in 1971 by an Act of Parliament, to act as advisory body in respect of balanced socio-economic development of the seven states of NE areas. The NEC started functioning in the year 1972. The NEC Amendment Act has come into force from 20<sup>th</sup> December 2002. As a consequence thereof, Sikkim is now a member of the NEC. Presently NEC consists of the Governors as well as the Chief Ministers of all the seven NE States. Moreover one of the members of the Council is nominated by the President of India as its Chairman. The NEC Secretariat is based at Shillong. Budgetary requirements of the Council were reflected under Ministry of Home Affairs, but now it is reflected under the Ministry of Development of North Eastern Region, Govt. of India. NEC has built up a Regional Documentation & Information Centre (RDIC) and came being in the year 1974-75. The prime objective behind setting up of the Centre is dissemination of information pertaining to all aspects of development activities, potentialities, problems, and plan strategies in respect of the constituent units of the NE Region. So, as an apex body, NEC could play a vital role in preparing an effective plan for library cooperation/ resource sharing/ consortia based approaches for the NE regional libraries & information systems
- D. ICSSR Efforts<sup>50</sup>:** Indian Council of Social Science Research (ICSSR) has set up a North East Programme Cell to promote social science research in the NE region. Even the Ministry of HRD, Govt. of India has directed the ICSSR to allocate at least ten percent of its plan budget for the promotion of social science research in the NE Region. Furthermore, ICSSR has set up a high powered North-East Fast Tract Advisory Committee in order to cut down procedure and facilitates quicker inflow of funds to the North-East region.



- E. INFLIBNET Initiative for PLANNER<sup>51</sup>:** Promotion of Library Automation on Networking in North Eastern Region (PLANNER) is an encouraging event, organized specially for the LIS professionals of the North Eastern Region, with resources and expertise drawn both from the NE Region and the rest of India. It was first initiated by the Information & Library Network Centre (INFLIBNET – *an Inter University Centre of UGC, Ahmedabad*) in collaboration with North Eastern Hill University (NEHU – Shillong), in 2003. Basically, the PLANNER was initiated for the development and modernization of libraries in NE India with an objective to pool and share the vast amount of resources spread across the Region. Objectively, it focuses to create a better awareness in this region, as well as to uplift the library professionals and expose them to mainstream ideology & fast emerging trends. No doubt, this venture will bridge the vast abyss that has existed in this region and will bring together the LIS professionals to a common platform to coordinate & cooperate among themselves. Furthermore, many of the university libraries from north-east has become a consortia member of the UGC InfoNet. These are NEHU, Tezpur Univ., Guwahati Univ., Dibrugarh Univ., etc. and some others are planning to become a member through Infflibnet.
- F. ISI-Library Consortia Deals with NE-Libraries:** By organizing 'MathSciNet Consortia', Indian Statistical Institute Library, Kolkata has rightly initiated the process of establishing a common platform for electronic access to MatSciNet database (world's premier research tool for mathematical sciences) among the libraries of northern and eastern part of India. This arrangement was first initiated at a meeting of ISI Library Committee with the encouragement of member co-coordinator of NBHM (DAE, Govt. of India), held at ISI Library in 1999. The agreement was established in association with 18 academic and research libraries; and some of the members from NE India has come under this consortia, viz. Guwahati Univ., Assam Univ., Manipur Univ., Tezpur Univ., etc. It is still continuing over the years.

Another example of ISI-Library's commitment to NE Regional Libraries is the Consortia-based subscription to EconLit database, an unique source of scholarly information on Economics, published by the AEA. This landmark agreement is the first of its kind in India, which provides the NE Libraries to obtain the broadest possible access to economic literatures, with free of charge. Primarily, Guwahati & Tezpur University from NE region has come under this consortium. ISI Library is still trying to explore such other opportunities for the benefit of North Eastern Regional Libraries of India.

- G. INDEST Consortia Deals with NE-Libraries<sup>52</sup>:** INDEST consortia deals have a good impact on the development of NERL of India. The Consortium, being an open-ended initiative, welcomes other institutions to join and get the benefit of not only highly discounted subscription rates but also the favourable terms of licenses. INDEST offers the best possible price advantage ranging from 25% to 95% (Average > 80%) through its pricing arrangements with publishers. Moreover the consortium would also provide technical help and arrange for in-house training for optimal usage of resources subscribed. A number of institutes/ universities from NE India have already come to a member of this consortium to draw the optimum benefits, by paying substantially low subscription amount. These are IIT-Guwahati, NIT-Silchar, NERIST-AP, Assam Engineering College, Tezpur University, etc.

**Organizational Models of Consortia –** There is no single best model for a library consortium. During past three decades, libraries have formed a variety of organizational models to obtain different kinds of supportive measures for the participants. Hirshon suggested three potential partners for libraries wishing to participate in a consortium<sup>53</sup> – Information providers (*publishers*), Service providers (*vendors, aggregators*), and Others (*archives, museums, art galleries, educational groups, etc*). Initially, library consortia were mostly restricted to the academic sector, but the tradition is changing gradually, even they are beginning to include multi-type organizations as well as libraries, museums, hospitals, research groups, and historical societies. Eventually they are resisting with the newer models. Such an initiative was made through EARL project in 1995, aims to demonstrate and extend the ability of public libraries to deliver networked information and knowledge-based services over around 160 local partners and 25 associate partners from government, professional, educational, and commercial sectors in UK. To cope up with various potential partners, a consortium can evolve from one model to another; as their members become more comfortable with each other to develop a collective agenda, and to participate to a greater degree in consortial activities. Therefore, the 'Consortia models' are emerged in different dimensions. These are broadly categorized as follows.

**PROPOSED MODELS:** Eminent experts of consortia proposed these models, as summarized below

- **Allen & Hirshon Model (1998)<sup>54</sup>:** Views that each consortium as being at a point on a continuum. The position on the continuum is based predominantly on the governance structure of the consortium, whether it is a formal or informal, centralized or decentralized structure. The points on the continuum are – loosely knit federations, multi-type/ multi-state networks; tightly knit federations, centrally funded statewide consortia.
- **O'Connor Model (1999)<sup>55</sup>:** Provides four models that are predominantly based on how the consortia are funded – Off the Top, Get on with It, Let's Help Ourselves, Do it our Way.
- **Helmer Model (1999)<sup>56</sup>:** Identifies a wide variety of models of library consortia based on the following characteristics – those formed by the Government mandate, License electronic resources, Offer other services, Has legal status, Has central office with or without staff, With or without central funding.
- **Haavisto Model (1999)<sup>57</sup>:** Opines library-licensing consortia in terms of how a consortium is managed and what needs to be looked at when entering into a consortial agreement. He looks a consortium can be managed by – a member of the consortium, a new legal entity founded by the partners, an outside agent.

**OBSERVED MODELS:** These are simply based on the observations, as described in various LIS literatures.

- **By Sector:** Categorized by the type of libraries those participate in each consortium. It may be Single sector, Single sector with state or national library environment, Multi sector, Mega-deals.
- **By Funding Source:** Categorized by how the consortia are funded. Funding may be Internal, External, or Combination of both. Sometimes it is described as Centralized or Decentralized funding.
- **By Governance or Organizational Structure:** Categorized by how formal their structures are. Governance structure may be highly informal, semi-formal or formal; organizational structure may have a central office with dedicated staffs or without having a central office & dedicated staffs.
- **By Degree of Integrity or Affiliation:** It is basically categorized by the intensity of integration among the constituent members. There is a broad spectrum – at one end of the spectrum there are loosely affiliated buying-clubs (to establish short term benefits) and at the other end there are tightly integrated organizations to retain long-term commitments for collaborative sharing.
- **By Specific Interest:** Categorized by the predominant interest or special interests of the members to come together. Commonality of interests may go through Discipline (Medical libraries consortia), Apex body (UGC-Infonet, CSIR consortia), Organization type, (Govt. vs Non-Govt.), Information need (INDEST for Sc. & Tech. information), Funding authority/ agency, etc.
- **By Geographical Location:** Categorized by the area or location covered by the consortia. It may have single identity with single/ multiple locations or may consider multi-national consortia deals. It can be a local, provincial, regional, national, and even international level – often global.

**INDIA SPECIFIC MODELS:** A variety of organizational models of consortia have been emerged in India based on their objectives, structures, member participants, funding sources, etc. A few of the prevalent categories/ models of library consortia represent a proto-type of a variety, which are being practiced in the library community in India.

- **Open Ended Model:** It is open-ended, means any library can join within a defined framework or terms of references and number of members are not fixed, eventually flexible. Here the participating libraries have the freedom to join or leave from the consortium. This model suffers from sustainability problem, as the members can quit at any time. FORSA and INDEST (partly) is the prime example of this type.
- **Closed Group Model:** Normally formed within a defined group based on certain criteria and the constituent members are homogeneous among themselves where the members have a common need to cross share the resources in a specific area. Here the guidelines and administration is fairly simple and easy. CSIR consortium (based on institutional affiliation) and IIMs consortium (based on homogeneity) are the example to this type.

- **Shared-Budget Model:** This type of consortia emerges with the proportional sharing of funds of the participating members, which is operated through the MoU for better and strong understanding. For instances – FORSA, HELINET, IIMs, etc.
- **Centrally Funded Model:** Here the existence of the consortium solely depends on the central funding agency, eventually imposed regulations by the funding authority. Here source of funding often dictates the structure of the consortium. For example, UGC-InfoNet.
- **Publisher Initiated Model:** Here, the publisher formally quotes a consortia price with attractive discounts for the participating libraries, obviously with the precondition that there should not be any discard in their print subscriptions. Such pricing practices by the eminent publishers/ societies are coming up for the developing countries - like India. Say for instance Consortia price for ScienceDirect (from Elsevier Sc. & Associates), for MathSciNet (from AMS) and so many.
- **National Venture Model:** Basically this is a national level initiative, but in India it is partly initiated through UGC-InfoNet (national license for Encyclopedia Britannica) and INDEST (national prices for various e-resources). A national consortium can greatly reduce duplication of efforts/ resources and also provide greater purchasing power. Still the implementation is pending in this direction. It is hoped that National Knowledge Commission will take such initiatives in near future.
- **Headquarter Executed Model:** Such type of consortia is driven by the Headquarter of a particular organization. Here the head-office of the branches/ institutes solely shoulders the financial responsibility of the consortium and the consortium is fully guided and executed by the head quarter. Consortia subscriptions among the centers of ISI.

## Benefits of Consortia Participation –

- **Foster resource sharing:** Besides sharing financial resources, members of consortia can share a variety of other resources [modern concept of resource sharing describes too]. Helmer (1999) emphasized that “for libraries, consortia provide shared expertise, access to new electronic and print resources, professional development, new sources of funds, and safety in numbers...”<sup>58</sup>. The resources that can be shared by consortia includes the following;
  - Sharing catalogues, sharing collections and in collection development & content creation.
  - Sharing electronic resources, sharing storage of resources, sharing archiving of resources.
  - Sharing staff expertise, sharing risk, sharing success and professional glamour.
- **Enhance library services to the users:** O’connor described the benefit of consortia to be customer-focused. If becoming a consortium member is not going to benefit the library’s users, then the library must question its reasons for becoming a member<sup>59</sup>.
- **Improves quality of library services:** Since mid-1990s, there was a growing national emphasis to improve the quality of library services and to reduce the cost of operation as part of the process. Libraries turned to consortia as a way to share information about (and to foster) best practices, and to reduce the unit cost of providing core services. It consolidates the library services in a good deal.
- **Increase financial benefit:** One of the most common reasons that libraries join consortia is to gain some financial benefit. “All library consortia have one goal in common: pooling their collective financial resources to leverage greater economic control over their marketplace...”<sup>60</sup>
- **Encourage for discussion, collective thinking & leadership:** Intangible benefits, such as the encouragement of discussion and collective thinking is a valuable part of being a member of a consortium. Shoaf points out that the value of increased communication between libraries cannot be overlooked<sup>61</sup>. Leadership is also an important part of library management. Consortium services manage more than the cost and a consortium can do this by providing leadership for its members that generates cooperative action for the advancement of educational environment, institution’s fiscal health, and the quality of services for the client of the library.
- **Demonstrate reduced cost:** In a situation of limited funds, any measures taken by a library to reduce costs can be seen by stakeholders and the public as a positive way for libraries to maximize

their resources. To reduce the cost of member library operation, consortia act as an agent on behalf of the member libraries to seek a reduced group purchase price for information resources that is lower than that which any one institution could achieve alone. Therefore, it considers new ways to consolidate global resources amongst the participating libraries in order to maximize their resources within limited budget.

- **Facilitates the 'change management':** One of the most complex issues facing libraries today is change management. The decisions face are becoming more complex, the risks are greater, and the resources are both human and fiscal, are becoming more spare. A library consortium is particularly valuable in managing the change. The process of change management normally proceeds through a series of steps<sup>62</sup>. Each of these steps involves significant risk. Change management is the process of minimizing those risks and optimizing the opportunities. Juechter et. al have written that "An organization needs external coaches to catalyze, guide, and facilitate a change process", because those who are already in the organization are too close to the situation to see things objectively. It is best to have someone from outside...
- **Provides training & workshop:** To manage change libraries must have an understanding of emerging issues. The consortium can play an invaluable role by providing training and organizing new programs or promotional activities (library improvement plan, classroom library plan, schools of library computerization, etc); to upgrade the existing staffs.
- **Enables better access:** Promote better, faster and more cost-effective ways of providing access to electronic information resources to the information seekers. Increasing amount of access to electronic resources is possible, across the institutions, at a lower cost or at an optimum cost possible for the subscription.
- **Facilitates better management:** Consortia can manage the electronic information resources in a better way and save the library from the hassle of print-resource management. Enhances buying power through the consolidation of collection and services.
- **Sustains the pressure:** Successfully meets the pressure of diminishing budget, increased user's demand, and rising cost of library resources.
- **Protects from Duplication:** Duplication of materials (cost), time, and effort can be minimized and by the by, savings and access can be maximized. A consortium also protects the duplicate manpower – expert, guide, online serial-control manager, system analyst, network manager, problem counselor, architectural consultant, etc.; by providing collective technical expertise in general or even detailed and specific levels of assistance, to member constituents.
- **Accelerates sustainable growth of libraries:** The collective strength of consortia members facilitates the libraries to get the equal benefit of wider access to electronic resources at an affordable cost and at the best terms and conditions. It also demonstrates the benefits to offer not only in terms of discounted subscription rates but also value added services like DDL and Search Interfaces and finally it brings the uniform growth, standard, and compatibility among the member libraries in a better to better situation. All these are indicating towards sustainability of the growth of libraries.
- **Benefits are manifold:** Facilitates ongoing communication, co-ordination, awareness, creates information super-highway, professional improvement, force to maintain standard, cultural broadness, increased visibility, preferred partnership, marketing and advertising opportunities.

**Hurdles of Indian Consortia Initiatives** – Perhaps the formation of a consortium is an easier task when compared to its long-term sustainability. A consortium has its own inherent benefits and those benefits can be maximized, while minimizing the negative aspects. Helmer recognizes that the benefits of consortia could be threatened by several issues, results the failure of a consortia<sup>63</sup>. So far the Indian libraries are concern, it has been found that some of the consortia initiatives could not materialized properly and some others are struggling with multiple hurdles. Authors have identified a few common barriers that are unique to India, which disrupts proper implementation of consortia initiatives in a real situation – as enumerated below.

- **Consortia without legal entity** – Consortia of libraries need to have a legal entity with permission and authority to deal with institutions like banks, since it would be involved in collecting subscription/ membership amount from the participating libraries so as to make payments to the electronic publishers. In the process, the consortium has to deal with banking organizations like RBI for arranging foreign exchange on behalf of the participating libraries<sup>64</sup>.
- **Problems in budget allocation and funding** – These are always a thorny issue. Belonging to a consortium means a part of library budget will be transferred to the consortia, but it is rarely possible to know the consortia subscription cost of the available resources in advance. Even the consortia cost can vary enormously depending on the number of participating members and license negotiation. Therefore the problem exists in budget allocation to the individual libraries – as the library can't predict the possible price packs for consortia resources at the time of its budgeting. Same time, the consortia can be ignorant about the number of participants and negotiations for the resources; so as to difficult to forecast the exact concessional benefits available to the participating libraries. Moreover, lack of initial funds for participation could be a barrier to the formation of a consortium.
- **Problem in transfer of funds** – The consortia need to be pooled together from various participating libraries to make an effective shared-subscription. But in common practice, the rigid administrative, financial, and auditing rules always create the problems in transfer of funds<sup>65</sup>. Most frequently the audit problem lies in defining the assets and volume of access against the payment. In a library subscription, audit generally allows to make payment only against proforma-invoices from the publisher or vendor or society, etc.- but not from a consortium. However, for any consortium subscription, publisher will send only a consolidated invoice to the head of the consortium but not to the member libraries of the same consortia. In such a situation, rules and procedure may not permit member libraries to make payment of the subscription cost of the consortia, unless the consortia itself can raise an invoice – here the question of formalizing the consortium might arise and audit hardly allows the payment against such invoices<sup>66</sup>.
- **Lack of awareness & understanding** – Librarians (especially in India) do not fully comprehend the concept of consortia based subscription to electronic resources and are not very keen to go wholeheartedly for the formation of consortia among libraries<sup>67</sup>. Sometimes they don't have good understanding about consortia benefits and often fail to get the opportunities. Even many libraries feel like to think that their financial contribution may not be commensurate with the benefits they get from a consortium.
- **Problems in local decision-making & control** – There is a fear that if a library joins in a consortium then local decision-making, autonomy, and control will be adversely affected. Virtually, the library authorities sometimes express their negative attitudes towards consortia. Moreover the libraries will not have the freedom to drop any title (as once committed), in lieu of any other new title.
- **Egos & Attitudes** – Egos & attitudes of Individuals or organizations can have a big impact on the success or failure of a consortium. O'Connor described, "to be a chief in one arena but to be an Indian in another requires not only a different commitment but also very different strategies and operating modes<sup>68</sup>". It is also difficult to change the old mind-sets of librarians.
- **Speed of decision-making** – A notion that exists, belonging to a consortium - the speed of decision-making of individual libraries can slow down. Though it depends how centralized or decentralized the consortium is.
- **Fear from local identity** – Most of the libraries don't want to feel like - they are losing their individual identity. Rather they like to think that the participation in consortia may loss their local identity and importance.
- **Type of agreement** – Agreement between members can have a major impact on the consortium's effectiveness. It has been found that some libraries did not join in consortia simply because of the agreement that was not of their choice<sup>69</sup>.
- **Technological compatibility & security** – Compatibility among the computers & communication systems of the participating members is very much required for a consortium, to maximize the benefits of IT. In most of the cases it becomes a critical issue. Say for example, if a consortium is

mutually agreed to access an online database with five simultaneous logons among ten constituent members through the recognition of IPs. It means at a given time maximum five users from the member sites (ten) can access the same database and no one is required to hold any password. But, if any member has only dial-up connection (i.e. without IP) instead of lease-line then it would be very difficult to accommodate the member with simultaneous access facility, as the member has Internet connectivity that is incompatible to others. Security is also another technological issue.

- **Multiple consortia memberships** – Individual libraries with multiple consortia membership can be a barrier to follow-up actions and to adjust with variant consortia cultures. So, multi-type-partnership may cause the conflict and cultural gap, is a genuine barrier to library consortia.
- **Geographic distance** – Distant location of participating libraries may be a meaningful barrier to effective communications and discussions, which is an essential ingredient for a successful consortium. Whenever the member institutions are separated by significant distance then the opportunities to meet or face-to-face discussion is a cost factor<sup>70</sup>. 'Virtual encounters' is only the way.
- **Specific institutional problems** – Every institution/ library has its own specific problems related to work culture, environmental differences, compromising attitudes, policies, etc. These specificity behaviors of individual libraries can be a big constraint of a consortium.

**Conclusion:** Recently, participating in consortia or formation of a consortium has proved to be the only viable solution in situations having stringent library budgets coupled with the rising cost of electronic resources. However the technology has changed the expectations of Indian researchers as well as library professionals from ownership to access. Therefore, the Indian libraries are not only moving in this direction but also playing a proactive role and strengthening the consortia approach for online access to e-resources and thereby enabling the academic and research community to have timely access to a wider resource base. Many encouraging sign has already been found that a good number of consortia deals have been made in India with the consistent growth of consortia in international scenario. Such Indian initiatives are expected to trigger remarkable development so as to ensure a sustainable growth of the libraries in the country. In India, where the government funds  $\frac{3}{4}$  of education and research, formation of a national consortium could have great potentialities. Here authors would like to pay their attention to induct and motivate the library communities towards the technology-driven coalition policies for better access to e-resources and to take up the challenges of 21<sup>st</sup> century. We firmly believe that all these will be possible, if the library community is able to grasp the importance of cooperation or partnership among the libraries, as quoted by N. R. Narayana Murthy from a hymn of Vedas<sup>71</sup> –

“Man can live individually, but can survive only collectively. Hence, our challenge is to form a progressive community by balancing the interest of the individual and that of the society. To meet this we need to develop a value system where people accept modest sacrifices for the common good”.

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