RESOURCES SHARING: AN OVERVIEW

As I walked through the wilderness of the world, I came to a certain place where there was a den, and I lay down in that place to sleep; and as I slept I dreamt a dream. I dreamed I saw a librarian with a book in his hand and a great burden on his back. I saw him open the book, and as he read, he wept, and tumbled, saying, "what shall I do; my collection is failing apart; my books are brittle. I can't buy everything I want that my patrons need; I have back logs of orders from the last three years, and my administration can't give me enough money or support staff to handle them all. Oh, woe is me."

Marcia Pankake

The economic, political, social, scientific and intellectual progress of any community is determined, and influenced, by the quality and quantity of information it is able to gather and exploit. Social institutions and scientific advances sustain and flourish in well-informed societies, whereas they are a failure in communities shrouded in ignorance. Johnson has remarked that "A democracy can never be a reality if knowledge of political, social, economic and
technological affairs is a monopoly of the privileged and the few. The book is a potent instrumentality for making such knowledge available to many"(2).

The library has been the institution entrusted with collection, organization and making available the knowledge for the varied purposes. From time to time it has remodeled its operations and services in keeping with the changing intellectual arena. With the emergence of information technology this institution began its application and thus emerged the modern sophisticated services.

But today the libraries were facing a serious challenge which owes its origin to the boom and crisis of the current century. A bird's eye view of the present maladies facing the library world becomes imperative to identify the factors that prompted libraries to cooperate aggressively and design programmes for total resources sharing.

Information Explosion:

Today every country is or is eager to be on the bandwagon of research and development. A rat race is on for gaining superiority in scientific and social research which has become a key factor for progress, prosperity and defence. Best estimates say that three fourths of the scientists the world has had since the dawn of the modern civilization are living in the present. This trend led, on the one hand, to the balkanization of knowledge, and on the
other, it has started to bring about disciplinary interdependence to create new subject affiliations.

The immediate by product of this unprecedented fillip to research and the trends in intellectual pursuits has been too much of information. It has been established that one half of the present body of knowledge has been generated in the last thirty years, or that five to ten times more information is available in a given subject area than thirty years ago.\(^3\) Ashworth has demonstrated the growth of information in Chemistry by calculating the years it took chemical Abstracts to publish successive millions of abstracts;\(^4\)

<table>
<thead>
<tr>
<th>Million Abstracts</th>
<th>No of years</th>
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<tbody>
<tr>
<td>First</td>
<td>37</td>
</tr>
<tr>
<td>Second</td>
<td>18</td>
</tr>
<tr>
<td>Third</td>
<td>8</td>
</tr>
<tr>
<td>Fourth</td>
<td>4.75</td>
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<td>Fifth</td>
<td>3.3</td>
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</table>

The investigator conducted a count of volume 116 and 117 covering 52 issues for the year 1992 and calculated that one million entries were now covered in less than two years as shown in Table 7.1. All this speak for the exponential growth on information in Chemistry and allied subjects. Likewise information in other fields is flooding the world.

This information explosion has consequently led to the publication explosion. Books and journals are published in tantalizing figures. Reade estimate that "the worlds output
<table>
<thead>
<tr>
<th>Issue No.</th>
<th>Date</th>
<th>Entries</th>
<th>No. Of Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Jan.06</td>
<td>1-6976</td>
<td>6,976</td>
</tr>
<tr>
<td>02.</td>
<td>Jan.13</td>
<td>6877-15158</td>
<td>8,181</td>
</tr>
<tr>
<td>03.</td>
<td>Jan.20</td>
<td>15159-21470</td>
<td>6,311</td>
</tr>
<tr>
<td>04.</td>
<td>Jan.27</td>
<td>21471-33719</td>
<td>12,248</td>
</tr>
<tr>
<td>05.</td>
<td>Feb.03</td>
<td>33720-42073</td>
<td>8,353</td>
</tr>
<tr>
<td>06.</td>
<td>Feb.10</td>
<td>42074-50584</td>
<td>8,510</td>
</tr>
<tr>
<td>07.</td>
<td>Feb.17</td>
<td>50585-59996</td>
<td>9,411</td>
</tr>
<tr>
<td>08.</td>
<td>Feb.24</td>
<td>59997-75448</td>
<td>15,451</td>
</tr>
<tr>
<td>09.</td>
<td>March 02</td>
<td>75449-84195</td>
<td>8,746</td>
</tr>
<tr>
<td>10.</td>
<td>March 09</td>
<td>84196-98689</td>
<td>14,493</td>
</tr>
<tr>
<td>11.</td>
<td>March 16</td>
<td>98690-1,06,827</td>
<td>8,137</td>
</tr>
<tr>
<td>12.</td>
<td>March 23</td>
<td>1,06,828-1,20,188</td>
<td>13,360</td>
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<tr>
<td>13.</td>
<td>March 30</td>
<td>1,20,189-1,29,664</td>
<td>9,475</td>
</tr>
<tr>
<td>14.</td>
<td>April 06</td>
<td>1,29,665-1,43,130</td>
<td>13,465</td>
</tr>
<tr>
<td>15.</td>
<td>April 13</td>
<td>1,43,131-1,52,421</td>
<td>9,290</td>
</tr>
<tr>
<td>16.</td>
<td>April 20</td>
<td>1,52,422-1,65,567</td>
<td>13,145</td>
</tr>
<tr>
<td>17.</td>
<td>April 27</td>
<td>1,65,568-1,74,783</td>
<td>9,215</td>
</tr>
<tr>
<td>18.</td>
<td>May 04</td>
<td>1,74,784-1,87,321</td>
<td>12,537</td>
</tr>
<tr>
<td>19.</td>
<td>May 11</td>
<td>1,87,322-1,94,890</td>
<td>7,568</td>
</tr>
<tr>
<td>20.</td>
<td>May 18</td>
<td>1,94,891-2,07,181</td>
<td>12,290</td>
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<tr>
<td>21.</td>
<td>May 25</td>
<td>2,07,182-2,14,925</td>
<td>7,743</td>
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<td>22.</td>
<td>June 01</td>
<td>2,14,926-2,27,407</td>
<td>12,481</td>
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<tr>
<td>23.</td>
<td>June 08</td>
<td>2,27,408-2,36,176</td>
<td>8,768</td>
</tr>
<tr>
<td>24.</td>
<td>June 15</td>
<td>6,36,177-2,47,671</td>
<td>11,494</td>
</tr>
<tr>
<td>25.</td>
<td>June 22</td>
<td>2,47,672-2,56,065</td>
<td>8,393</td>
</tr>
<tr>
<td>26.</td>
<td>June 29</td>
<td>2,56,066-2,68,410</td>
<td>12,344</td>
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<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>January - June</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Volume 117</strong></td>
<td><strong>July to December 1992</strong></td>
</tr>
<tr>
<td>1-26.</td>
<td>July 06</td>
<td>1-2,64,027</td>
<td>2,64,027</td>
</tr>
<tr>
<td></td>
<td>to Dec.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total Abstracts covered in 1992</strong></td>
<td><strong>5,32,437</strong></td>
</tr>
</tbody>
</table>
of new books is around one thousand titles per day."(5) Lancaster estimates that there are now about 50,000 journals in scientific and technical areas published worldwide and this number is steady increasing at a compound rate of 2 to 4 percent per year.(6)

This growth is not only in the number of journals but also in their size to accommodate more and more information. Sandoval and others state that a journal now doubles its size every 4.6 year.(7) As the size increases journals split into manageable sizes. This is equally true of the secondary journals.

Then there are other types of print and non-print packages of information including the grey literature, all flooding the world day in and out. This mushroom growth of literature constituting the intellectual patrimony of mankind, has created several bewildering situations for libraries worldwide, particularly when the patrons awareness of materials has increased manifold because of the bibliographic tools available now. But the libraries plead helplessness to come up to the expectations of the users. Allen Kent has painted a very gloomy picture of this situation:

1. There have been 30 million unique titles published since Gutenberg- how many have anything more than 5% of these- I guess some have less than 1/2 %.

2. There are 50-100 thousand journals published currently -- how many subscribe to more than 10-15% -- some subscribe to less than 1/2%.
3. About 500 thousand books will be published world wide in 1974 -- how many will buy more than 10-15% -- some will by less than 1/2%.\(^{(8)}\)

Indeed, it is like finding needle in a hay stack. Even when a library acquires what little it can, it has the problem of housing, maintenance and preservation, and what not. Preservation is always a major threat and Barrow warns that "it seems probable that most library books printed in the first half of the twentieth century will be in an unusable condition in the next century."\(^{(9)}\)

With all these problems before it, a library is overawed what to do. The solution to these problems, by and large, has been found with resources sharing which paves the way for cooperative acquisition, processing, maintenance and access to information.

Inflation:

Price rise is a common phenomenon of all the commodities round the globe. But the price hike in library materials is a unique phenomenon. Lancaster has observed that "the publication process is a very expensive one, and the publication costs have been increasing extremely rapidly because of increasing costs of labour, materials and physical plant"\(^{(10)}\). Allredge and Atkinson also conclude that "the increased costs of reading materials over the past decade have for exceeded the general rate of inflation and the result has been a steady erosion of purchasing power of libraries."\(^{(11)}\)
Prices of journals are really zooming. Some of these have experienced price increase of 850 percent in a ten years period. De Gannaro while surveying the zooming prices of journals observes that Inorganic Chemica Acta was available to libraries at an annual subscription of US $26 in 1970 but cost $235 in 1975, a staggering increase of 804 percent.\(^{(12)}\)

Likewise there is a price escalation of secondary journals which are the backbone of any information service today. Chemical Abstracts cost an annual subscription of just US $12 in 1940 and rose to $3500 in 1976. In 1993 it zoomed to $14,700 plus postage.

Moreover, there is a price discrimination in journals. The journals publishers usually employ a three-tier pricing policy: higher prices for institutional subscribers; higher prices for foreign subscribers, much higher than the one for native subscribers; and comparatively low price for individual subscribers. Joyce and Merz demonstrate a difference of nearly 200 percent between individual and institutional subscriptions, adding that "differences vary from discipline to discipline"\(^{(13)}\).

Astle and Hamakar, studying native and foreign subscription variations, concluded that the US subscribers pay, on an average, 39 percent more than British subscribers on Britain journals, in addition to any already existing price
difference for institutional subscribers.(14) There is also

evidence that some publishers have a propensity to discrimi­
nate more than many others, as is clear from Thompson's
observation that at the University of California, Riverside,
1 percent of journals account for 25% of annual journal
subscriptions.(15).

For developing countries it is not only the price
escalation that is creating the havoc; equally irritating is
the frequent devaluation of their currencies against the
Almighty dollar. Increasing postal charges and unorganized
publishing market compound the problem further.

All these factors have branded libraries as bottomless
pits. Their budgets increase steadily and thus they spent
more, but they get less. Association of Research Libraries
in US has observed "that from 1968/69 to 1978/1979 ARL
member libraries spent 91 percent more for library materi­
als, yet added 22.5% fewer books to their collections."(16)
There is now a wide gap between patrons expectations and
requirements and the libraries' ability to meet them.

Mounting Patrons Populations:

There was a time when library service was utilized by a
small segment of the society engaged in limited educational
and research pursuits. But the present socio-cultural envi­
ronment makes it incumbent upon every body to be informed
politically, socially, culturally and scientifically to live
a successful, prosperous life, both as an individual—and as

269
a member of the society.

The universalisation of education and the 'student centered' approach to learning and the continuing and distance education, all have enhanced dependence on libraries. Fillip to research too has resulted in increased reliance on libraries a great deal.

Naturally, more and more people use information resulting in mounting population of patrons in libraries. As a library's users' population grows, needs increase and diversify. Libraries began to expand the radius of their services but the exponential growth of information and the price escalation created hurdles on all fronts.

Quality of Library Service:

Today's environment of education and research, increasing disciplinary interdependence, and greater and wider use of information have revolutionized the concept of library service worldwide. Patrons now expect from their libraries a more responsive and comprehensive service; they now demand from their libraries filtered information tailored to their exact requirements. The concepts of documentation, information storage and retrieval, current awareness service, selective dissemination of information etc. reflect the new trends in library service. The information technology has been playing a great role in the growth and sophistication of these services.
Patrons too are facing a big problem; the quantity of information available to them today is enormous and they are not able to assimilate it to keep current in their respective fields. McCandless and others\(^{(17)}\) tried to gauge accurately the impact of the size of the literature on one's ability to keep up. Choosing the biomedical field they estimated publication of 2 million papers every year on the subject. According to them these papers could be read at the rate of two per hour, assuming that the reader can read approximately 70 languages, and has the documents at hand. If journal reading is limited to one hour a day and continued 365 days per year, then it will take more than 27.4 centuries to read the output of just one year. Bernier is of the opinion that in practically all fields, researchers are finding it difficult or impossible to keep up.\(^{(18)}\) In such a situation the traditional library services had to be substituted by the comprehensive current awareness services and selective dissemination of information. This called for the availability of larger resources of information possible only in a co-operative environment.

Resources Sharing:

Self-sufficiency, thus, in such an intellectual environment is a myth — a will of the wasp — nearer we feel we have reached, farther we find we are. This realization led to the emergence of resources sharing. The first manifestation of library cooperation has been the inter-library loan which continue to be a well-established practice even
The concept of resources sharing is not altogether new. These are evidences that it has been proposed from time to time in the past. Joseph C Rowell, for example, pleaded for cooperation in express terms in the 19th. century:

The growing demands of scholars, incapable of satisfaction by one library, and the economic management of library finances, unitedly prompt a closer relationship, a vital union between the large libraries of our country.19

Several other professional experts began writing about cooperation among libraries in the 19th and 20th centuries. Jewett, Dewey, Richardson, Gould, Warner, Ranganathan and a host of other began advocating for library cooperation.

After the Second World war the idea of library cooperation, until then at a teething stage, began to mature. Immediately after the war the famous Farmington plan was drawn up in USA, which worked wonders and was wound up after the enactment of the Higher Education Act of 1965 after which its continuance was meaningless. For, the Act, provided for National Program for Acquisition and Cataloging and became operative from 1966.

In sixties and seventies the frustration among both seekers and providers of information began to become critical, and called for effective bibliographic control to ensure free flow of information and its universal availability. The hard facts of the time like rising costs that
consistently outreach rising income, a persistently growing volume of publications of all types from which we must pick and choose, the emergence of information-based society and the subsequent growth of information seekers population and the new intellectual arena which brought about diversification of patrons' requirements in libraries, assumed the dimensions of a very serious crisis. These factors lead to the demonstration of an international concern by all parties concerned. This international concern prompted Unesco to collaborate with International Council for Scientific Unions to make a feasibility study for the establishment of a new information order in the world. The outcome was the UNISIST - The intergovernmental programme for cooperation in the Field of Scientific and Technological Information - published in 1971. (20) The report made a strong case for international cooperation in universal availability of information as is evident from the transmittal memorandum by Harrison Brown, the convenor of UNISIST Central Committee:

The committee agrees unanimously that a world information system, considered as a flexible network evolving from an extension of voluntary cooperation of existing and future services, is feasible. (21)

The report took a stock of the prevailing situation in the transfer of information and gave a strong justification for international availability and accessibility to all the information whenever and wherever produced in the world in these words:
Knowledge is an international resource, built painstakingly by scientists of all countries without regard to race, language, colour, religion or political persuasion. As it is built internationally, it is used internationally.

The report consisting of twenty two recommendations is an unprecedented effort to advance the trend towards information sharing. It is an international effort to synthesize a diversity of philosophies, programmes and policies that relate to the free flow of scientific information and is described as a philosophy, a movement and an organization. Maintained under General Information programme (PGI) it has successfully created a now awakening for resources sharing and has launched a number of programmes to translate the UNISIST goals into practice.

In order to develop national information systems in all the countries that will help in achieving the UNISIST goals, the Unesco gifted to the world yet another leadership for establishment of efficient national information systems, NATIS in short. The Unesco sent experts to different countries, where needed, to help them develop national information systems on the lines of NATIS. It sent Dr. Peter Lazer to India under this programme to help India to survey the existing facilities and prepare the outline for a national plan which finally emerged as the National Information system for Science and Technology (NISSAT). Under the NISSAT programme the country has made head-ways to establish a comprehensive national information system in all sectors of research and development.
International Federation of Library Associations and Institutions (IFLA) also initiated various activities in spreading the resources sharing movement throughout the world. In addition to several activities for standardization of various library techniques, as other international associations and federations have also done, it first propagated the idea of bibliographic control throughout the world -- the idea on which work was begun in the last decade of the nineteenth century by Paul Otlet and Henry la Fontaine under the auspices of their Internal Institute for Bibliography, the forerunner of the International Federation for Documentation (FID). IFLA took steps towards making it professionally acceptable and practically viable. The ultimate aim of universal Bibliographic control is to inform the people of the various sources of information so that they know them and use them. The bibliographic control is analogous to flood control. Torrential rains cause floods. Nobody can stop rains to come. But under the flood control programme the flooding waters are channalized into flood canals to avert further inundating which threatens life and property. Likewise, as more and more knowledge is flooding the world, nobody can plead for a closure of further research which generates new knowledge. Like flood canals, the knowledge is recorded in various bibliographic tools to ensure smooth flow of information.

Later, the IFLA fielded another ambitious programme called Universal Availability of Publications (UAP). In 1980
IFLA published a pamphlet explaining the nature of UAP, which is both an objective and a programme. The objective is to ensure the worldwide availability of publications with the aim that every one should have access to any published material as and when needed anywhere in the world. The UAP is the target objective and the UBC provides the tools to achieve the objective.

Several countries have already developed resources sharing models. Most of the developing countries are yet to be off the mark. In India, of late some solid programmes have been initiated which include the establishment of the NISSAT and a number of discipline and mission-oriented sectoral information systems under its auspices. Some States have also developed networking models with the support of NISSAT.

The University Grants Commission is also ceased of the problem and it pronounced the idea of designing a network for university, college and R&D libraries in the country, INFLIBNET, in short.

Thus it appears to be an opportune time to talk in terms of establishing a resources sharing system for the state university and college libraries, to begin with. In due course it may include all types of libraries in the State to grow into a real JAKLINET, a real step towards realization of the objectives of UNISIST, UAP and the like to ensure free flow of information and its availability in the State.
FOOTNOTES

CHAPTER - 7


04. Wilfred Ashworth. The information explosion. Library Association Record. 76, 4; 1974; p. 66.


10. Lancaster. op. cit., 349.


22. Ibid. p. 162.