

**DIRECTOR'S REPORT**

**1994 - 95**

***delnet***

**DELHI LIBRARY NETWORK**

40, Max Mueller Marg

New Delhi - 110003

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Dr. S Varadarajan, President  
Dr. S S Murthy, Vice-President  
Mr. H K Kaul, Director  
Mr. P Jayarajan, Treasurer

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DELNET has emerged as the first operational library network in India and has completed the third year of its establishment as a registered Society. It has progressed well in the areas of promotion of database creation, union catalogue of books, union list of periodicals, E-mail, membership and access to international databases. Many of the activities that DELNET had to undertake in Phase-III of its feasibility report have been completed by now. The training programmes which began with Phase O are continuing and have become an important part of DELNET activity.

### **E-mail**

E-mail facilities that were started in 1991 are progressing. DELNET is going ahead with the new E-mail installations. At present we have 46 E-mail connections in Delhi including two outside Delhi. We have started providing a 24-hour service to our users. The awareness that DELNET has created among the libraries about the utility and cost effectiveness of E-mail and its use is rising at a fast rate. To provide efficient and quick response to E-mail users DELNET plans to purchase a machine of a higher configuration for its central host. This will be a unix based machine with more serial ports to accommodate more telephone lines. This machine will also be used for accessing international databases. The leased line between Delnet and DOE will be attached to it. With this we hope that our E-mail services will improve to a great extent.

DELNET has been wanting its member-libraries to use RENNIC and it is hoped that NIC will provide preferential treatment to libraries. We have already applied for a leased line between DELNET and NIC and hope that it becomes operational soon. As RENNIC will also be used by a large number of institutions in India, DELNET libraries can send E-mail to them as well. We are, however, going to harmonise the E-mail use and integrate it in the near future. List of E-mail users is given in appendix II and a sample of E-mail traffic in appendix III.

### **Retro-conversion**

Creation of catalogues in machine readable form of the books in libraries is one of the major tasks each DELNET library faces today. This task varies with the size of the collections in libraries, availability of funds and qualified library personnel for this purpose. DELNET had negotiated the creation of the catalogue of the Institute for Defence Studies & Analysis Library through INSDOC. INSDOC has classified and catalogued about 23,000 of IDSA's books. More libraries are approaching DELNET for help. DELNET has not so far

undertaken the retro-conversion job itself. We hope to make a beginning in this direction next year. We are however on the look out for appropriate bodies to undertake the retro-conversion jobs of libraries.

### **Union Catalogue of Books and OPAC**

DELNET is regarding information as a vital component for the transformation of our society. It is a resource on which the growth of the disciplines is based. DELNET has been working successfully since January 1988 towards the creation, storage and dissemination of this resource. DELNET's online union catalogue of books, one of the basic resources of a library network, has been growing. One lakh fifty thousand records with one lakh sixty five thousand locations are present in its database and it is expected that by 31st March 1996 about four lakh additional records will be added to the union catalogue of books.

### **Union List of Current Serials**

The first version of the Union List of Current Serials in Delhi Libraries was compiled in 1991 at JNU with the financial assistance of NISSAT. Another project was taken up in 1994 to update the previous volume. DELNET has almost completed the work on the updation of the Union List of Current Serials available in Delhi Libraries. This work is also being done at JNU Library with the assistance of NISSAT. The data will be made available to all DELNET libraries on request. This list will eventually be converted into a union catalogue of serials available in Delhi libraries in the years to come. We hope to make the union catalogue of serials available online to the users as it grows.

### **Members**

During 1994-95, 21 institutional members and 2 associate institutional member were admitted. The total number has risen to 38 institutional members and 5 associate institutional members. There has been an increase of about 100% over the last year's figures. The complete list is given in Appendix I.

A number of libraries from outside Delhi have approached DELNET for membership. As soon as communication links become cheaper, we hope that more libraries from outside Delhi will join DELNET.

### **Inter-Library Loan**

As one of the primary objectives of Delnet is to promote resource sharing, the courier facility had been resumed for its

members for effective delivery of documents. Members have been wanting that DELNET maintained its own courier for the security of their documents. We are not happy with the service given and would like to have our own courier facility when funds permitted.

### **Access to International Databases**

DELNET has been maintaining the facility to access international databases through DIALOG. As the facility was quite expensive, we have begun accessing international databases through ERNET. A leased line circuit upto DOE was established. As a result access to INTERNET has become very easy and economical. Details are being worked out to provide this facility to DELNET members at affordable charges. Also, we have come to an arrangement with the British Library for accessing Blaise -line databases. Experiments are going on. We hope member-libraries will be able to access Blaise-line and other international databases in the near future at lower charges.

We have also applied for a leased line circuit from DELNET to NIC. As a result DELNET members will also be able to access international databases through RENNIC at lower charges.

### **Directory of Libraries**

DELNET is updating the directory of its member-libraries for the purposes of inter-library loan, rationalisation of periodicals, E-mail, database creation and standardisation of records. This directory will be available online to the users when the next version of LIBRIS becomes available to us.

### **Software**

Frontier Information Technologies Pvt. Ltd. had very kindly provided LIBRIS software to DELNET for its union catalogue and other purposes.

We have been using it for the union catalogue of books and merging of the records of books of the participating libraries. However, DELNET has an open approach towards the upgradation of this software and adoption of other softwares for networking purposes.

The Research Advisory Committee discussed the LIBRIS software in detail. They were informed about the problems that are faced in using the software. The problems being faced were :

1. Cursor movement among the fields in all the screens and also within the field was unsatisfactory. Provision needed to be

made for inserting and overwriting characters like any other editor.

2. Insufficient space to the following fields posed problems sometimes :
  - i. Address field in member master in administration;
  - ii. Name field in member master in administration; and
  - iii. Subject field in periodical subscription.
3. Added catalogue card for the second and third author could not be prepared.
4. Report of the duplicate title in the union catalogue module may contain more fields. A decision needed to be taken whether to treat it as a separate entry or not.
5. Name of publisher, place of publication and year of publication fields were not available in the module for acquisition of books.
6. No provision for entering duplicate copy, if any was present.
7. No provision for deleting periodicals subscription details if a periodical was not active. Also we could not change these details to activate it.
8. No provision for receiving a combined issue for a subscribed periodical, eg. Vol 49 No. 1 & 2, was present.
9. If an article was not properly defined and was not confirmed, the system saved its title number and assigned the net number to another title.

Many of these problems have been resolved in the next version of the software which we are expecting soon. However, the following are some of the features of the new version :

- i. After entering the login id and password, the user will enter into the OPAC module of the LIBRIS software. At the "USER LOGIN" screen, the member had to give the "member id" followed by "password". This additional feature is being introduced to maintain secrecy.
- ii. In the "MAIN OPAC MENU", eight new modules are being incorporated. These are as follows :-

1. Delnet Information
  2. OPAC Instructions
  3. Current Awareness Services
  4. Abbreviations
  5. Union Catalogue of Books
  6. Union List of Current Serials
  7. Union Catalogue of Serials
  8. Articles.
- iii. The users can search the union catalogue of books from the "MAIN OPAC MENU".
  - iv. In "Title Search", there are two ways of searching, one by entering the first few words of the title along with the wild-card characters or any two words from the title separated by a boolean operator.
  - v. In "Author Search", for single author, one can use the first strategy (Search 1 option). But for the joint authorship, the name of the two authors can be entered with a boolean operator using the second strategy.
  - vi. In "Subject Search" also there are provisions for entering a single subject as well as more than one subject separated by boolean operators.
  - vii. Like the other searches, in "Call\_No. Search" also provision for entering more than one call number is there.
  - viii. "Combined Search" option is the most useful addition in this new version. In this option, one can enter more than one search field. There is a provision for using upto seven search fields at a time with boolean operators.
  - ix. In all the above search options, one can save the search results and can take a print-out of that.
  - x. Retrieving of already saved search results and editing of the results to create new search strings are also possible.

### **Training Programmes**

*CDS/ISIS with Pascal Interface* : DELNET conducted a training



programme in CDS/ISIS with Pascal Interface in collaboration with the Indian Institute of Technology, New Delhi and NISSAT from January 16-28, 1995. While inaugurating the training course, Dr. S S Murthy, Director, DESIDOC stressed that one should practically work on this software after returning to their respective institutions as it was a powerful software for data entry and retrieval purposes. The course was conducted at IIT, Delhi. Mr. Mohinder Singh, Librarian, IIT was the Course Coordinator. Twenty two library professionals attended the training programme. All participants were from Delhi libraries except one from Ghaziabad. Practical aspects of CDS/ISIS and Pascal Interface were discussed in detail. Prof. R Satyanarayana, Librarian, IGNOU addressed the valedictory function and said that DELNET was the only agency creating awareness in the libraries about modern information tools and techniques and promotion of the database creation in the libraries. And also it was helping the library professionals in general.

*Training on E-mail and Online Services* : DELNET organised another training programme in E-mail and Online Services from January 30 - February 3, 1995 in collaboration with ERNET and with the financial assistance of NISSAT. The training programme was inaugurated by Dr. S Ramakrishnan, Director, ERNET, Department of Electronics. He said that E-mail was a very powerful communication media these days as it connected institutions and databases all over the world at a very reasonable cost. INTERNET, a computerised system of interconnected computer networks, was the growing information and communication system through which one could, apart from sending E-mail, access online databases available on it. He referred to the enormous data available through such networks. Twenty eight library professionals attended the training programme. DIALOG services, information retrieval through electronic media, electronic mail, Xmail software, basics of communication, CD-NET, and online union catalogue of books of DELNET were some of the important topics discussed in the course. Stress was placed on the practical use of Xmail software that was being used by DELNET for E-mail purposes. Prof. A P Srivastava in his valedictory remarks noted that the participants were from reputed institutions and observed that DELNET had done a very good job in developing the electronic culture in the libraries.

### **Library Networks: Future Trends**

#### **(i) Lectures**

DELNET organised a lecture by Dr. David Magier of the

Columbia University Library on April 27, 1994. The programme was presided over by Prof. A.P. Srivastava, Librarian, Delhi University.

Dr. David Magier spoke on the role of American libraries, their functioning and storage and dissemination of information. He said that Columbia University had taken up a project to assess the traditional role of librarians. He remarked that the librarian was a mediator between the information seekers and information sources. Now-a-days, new categories of information like bibliographic databases and electronic media were evolving. But since there was no proper access to subject query in network perspective, librarians' duty was to evaluate information and discover and identify the best way to retrieve information.

Dr. Magier also said that a 40-hour course was being conducted for librarians in locating information. As part of the course they had to compile bibliographies using electronic media and online services.

Talking about his observations on DELNET, Dr. Magier said that the efforts being made by DELNET in providing online union catalogue of books and E-mail were appreciable and were in the right direction.

Dr. Magier also talked about the creation of South Asia Goffer by Columbia University dealing with languages, maps, visuals etc. relating to South Asia. He said that research so far was being done on paper-based information like books, journals etc. They would now be shifting to electronic media too.

Answering a question with regard to duplication of work done by different universities, Dr. Magier said that the networks helped in identifying or preventing duplication, as information was getting fed into the network immediately. He said that there were two major information networks in the U.S. viz. OCLC and Research Libraries Information Network. Both could be accessed to check information. A universal lexicon of 6500 subject heading was also being produced. These tools were becoming very helpful.

He warned that standards had to be well defined and protocols and the format had to be prescribed. He added that in some cases the software itself checked the records and discarded records that were below prescribed standards.

Answering another query he said that computerized network was only a medium or access point to information but it was not a panacea for all the needs. A symbiosis had to be worked out.

DELNET organised another lecture on Library Networking : Problems and Prospects by Mr. Bruce Royan, Director, Information Services & University Librarian, University of Sterling, UK in December 1994 in collaboration with the British High Commission, British Council Division.

Mr. Royan maintained that more and more material was being published in the electronic form. More scholarly literature was becoming available through electronic mail, "What was needed to access this information was networking and there were so many things happening in the networking at the moment that it was difficult to keep track of it".

While discussing the different networks, he said that the JANET at the moment was a dual standard network, but they were planning to move over to TCP/IP. He expected that with this standard protocol in the near future the user computers will be able to shake hands with each other.

He added that the Integrated Services Data Networks (ISDN) covered Switched Telephone Network Connections using digital techniques. Sterling was one of the limited group of institutions that had INTERNET connections. The plans were to upgrade the connections of all British Universities to 34 million business centres by next year. JANET was likely to become SUPER JANET and would pull around the transmission of images and voice, video etc.

He referred to some of the network information retrieval tools such as Gopher. Gopher used a technology called client/server which provided a distributed information delivery system around which a World/Campus-Wide Information System (CWIS) could readily be constructed. Gopher facilitated access to other Gopher and information servers throughout the world.

Referring to WAIS (Wide Area Information Service) he said that this was originally developed by a firm called Thinking Machines Ltd. They were selling WAIS service software that was more sophisticated than the software which they had originally developed and which they had released free of charge on the network. It allowed the searches to be made of the multiple databases of the remote sites and that was very important because it allowed the network to ask a question without necessarily knowing which site would answer that question. It attended to the key word matching as well as the document matching.

He also referred to World Wide Web (WWW) and said that this

was originally developed for the High Energy Research for sharing the information among researchers. The WWW was the vision of programmes that could understand the different information-retrieval protocols in use on the INTERNET as well as the data formats of those protocols as it provided a single consistent user-interface. The particular thing about WWW was that it presented the information that it found in a way as if it was one document, one very nicely produced document which had hypertext links.

He referred to Mosaic and said that it linked together a whole range of information retrieval tools which were available on network and one did not need to know any more whether one was looking at Gopher or Telnet or WAIS. It did not make any difference to the end user and they didn't need to know all those things. All they needed to know was what to do on a particular page.

He referred to the work done at the University of Sterling and said that they had a scholarly work station. An Apple Mac had got the provisions for pictures as well as for the typed script. Here one was provided with a number of menus for Sterling University Library and a few other libraries. If somebody clicked on to the British Library, it would run up to the British Library and then took you to the home page of the British Library's OPAC.

He added that the first service that was put up was the "Publications of the Institute for Scientific Information". It covered the citation indexes of all the major fields of knowledge including arts, humanities, social sciences, and science and also the indexes to the scientific and technical proceedings. He said that in addition to this, it also gave the coverage to the contents of more than 7,000 journals and nearly 4000 conferences per year. Above all, the information indexing was very vital. And this service was started at the University of Bath in 1991. To start with, the service was meant for the unlimited use of the staff and students of all the universities of UK. Within a few days after the launching of the service it showed an increased pattern of its growth. Now at present nearly 8000 users were logging into the system per day.

### **Seminars**

A seminar was arranged on LIBRIS ver. 3.0 which was conducted by the Frontier Information Technology Pvt. Ltd. About forty librarians participated in the seminar and gave feedback to the software engineers. The software requirements for DELNET were also discussed at the seminar.

## **DELNET Newsletter**

DELNET Newsletter is becoming popular among librarians, and information and network specialists. The third issue of the Newsletter is in print and we hope to make the forthcoming ones more informative.

### **Director's visit to the UK, USA and Canada**

In July/August 1994 I visited some of the libraries and library networks in UK, USA and Canada. My observations are given in Appendix IV. I would like to express thanks to the Department of Culture, Government of India; Indian Council for Cultural Relations; British Council Division, British High Commission; US Information Service; and International Development Research Centre, Ottawa, Canada for providing financial assistance for this visit.

### **Recognition as a Scientific and Industrial Research Organisation**

The recognition of DELNET as a scientific and industrial research organisation was renewed from 1st April 1995 to 31st March 1998 by DSIR, Ministry of Science and Technology, Government of India.

### **Finances**

The overall financial position of DELNET continues to be satisfactory. It has been possible especially with the increase in membership, no expenses on office space or core staff and with the financial assistance received for projects from NISSAT and NIC. This year we have deposited in FDR Rs. 2,00,0000. The accounts are regularly audited and maintained with the help of IIC's accounts office. In this regard I would like to thank Mr. J.D. Phillomen Dos and Mr. W R Sehgal for their generous help.

### **Concluding Remarks**

DELNET could not have been functional if it did not receive support from different organisations. NISSAT has been providing financial assistance from the very beginning. We are indeed thankful to Dr. A Lahiri, Joint Adviser, DSIR, Mrs. S Ravindran, Director, NISSAT and their colleagues for help and guidance. We are also grateful to Dr. N Seshagiri, Director-General, NIC for providing hardware/software for the host and for other assistance. Without this support of NIC DELNET could not have become operational. We are indeed grateful to the help given by NIC officials, especially Dr. N Vijayditya, Deputy Directory-General, Dr. M V V S Reddy, Principal Scientific Officer and Mr. R K Goyal, Head, RENNIC Division of NIC for help. India International Centre's contribution to DELNET is of

great importance. DELNET may not have been existed without the support of IIC. We are grateful to Dr. Karan Singh, President, Dr. Kapila Vatsyayan, Vice-President, Mr. N N Vohra, Director and Mr. N H Ramachandran, Secretary of IIC for their generous help and support to DELNET.

I am glad to say that DELNET staff have been working hard and sparing no pains to cope up with problems of member-libraries. Thanks are also due to the staff of IIC library, especially Mr. Akhtar Parvez for cooperation and help.

Before I conclude, I would like to express my sincere thanks to the members of the Governing Board and Dr. S Varadarajan, President, DELNET for constant help. I am also grateful to the librarians, for their faith in DELNET and cooperation in making it a successful and growing phenomenon.

15 March 1995

H K Kaul  
Director



### Institutional Members

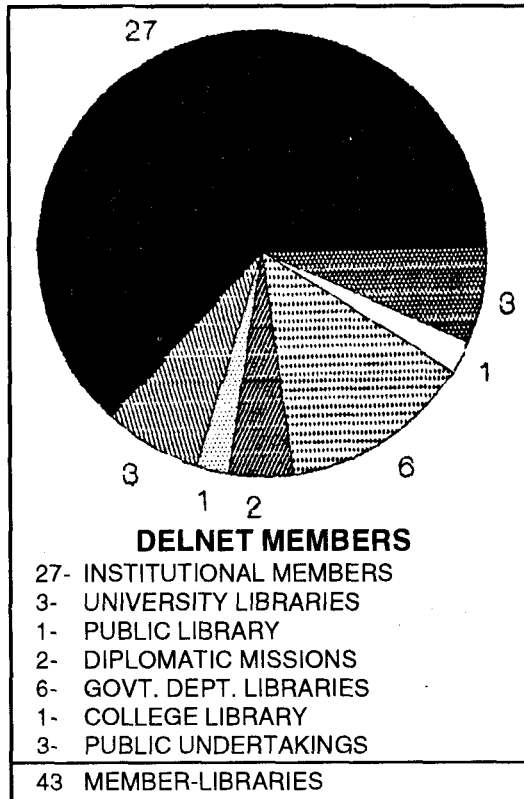
All India Association for Christian Higher Education  
American Center Library (USIS)  
British Council Division, British High Commission  
Central Road Research Institute  
Central Secretariat Library  
Centre for Human Sciences, Embassy of France  
Centre for Policy Research  
Council of Scientific and Industrial Research  
Delhi Public Library  
Delhi University Library System:  
    Arts Library  
    Central Reference Library  
    Central Science Library  
    Law Faculty Library  
    Ratan Tata Library, Delhi School of Economics  
    South Campus Library  
Department of Electronics  
DESIDOC  
Devahuti Damodar Swaraj Trust  
India International Centre  
Indian Agricultural Research Institute  
Indian Institute of Advanced Study, Shimla  
Indian Institute of Mass Communication  
Indian Institute of Public Administration  
Indian Institute of Technology, Delhi  
Indian National Science Academy  
Indian Oil Corporation Limited (Refinery Division)  
Indira Gandhi National Open University  
Institute for Defence Studies and Analysis  
Institute of Management Technology, Ghaziabad  
Jawaharlal Nehru University  
National Council for Cement and Building Materials  
National Council of Educational Research and Training  
National Institute of Health and Family Welfare  
National Institute of Immunology  
National Institute for Educational Planning & Administration  
National Institute of Punjab Studies  
National Physical Laboratory  
Planning Commission



Press Trust of India  
Publication and Information Directorate  
Shastri Indo-Canadian Institute  
Solid State Physics Laboratory  
Sri Ram College of Commerce (DU)

**Associate Institutional Members**

Bharat Heavy Electricals Limited  
Centre for Bio-Chemical Technology (CSIR)  
Fifth Central Pay Commissions  
Power Finance Corporation  
Tata Consultancy Services

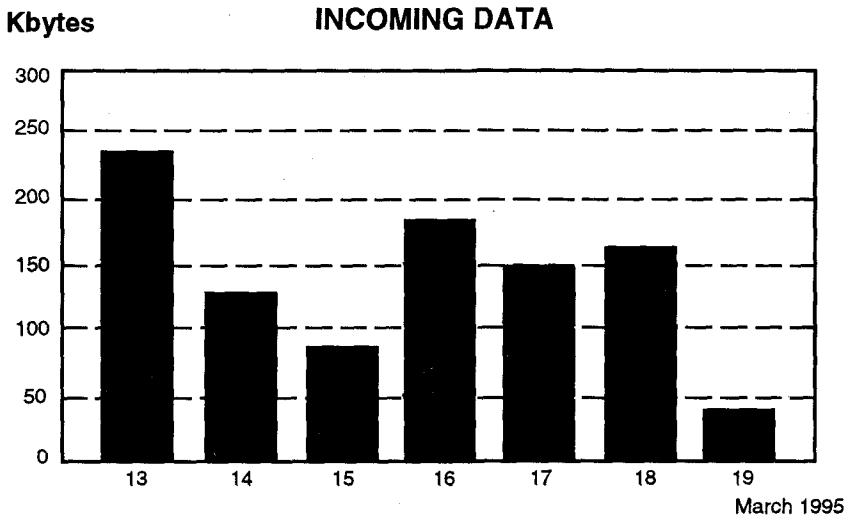
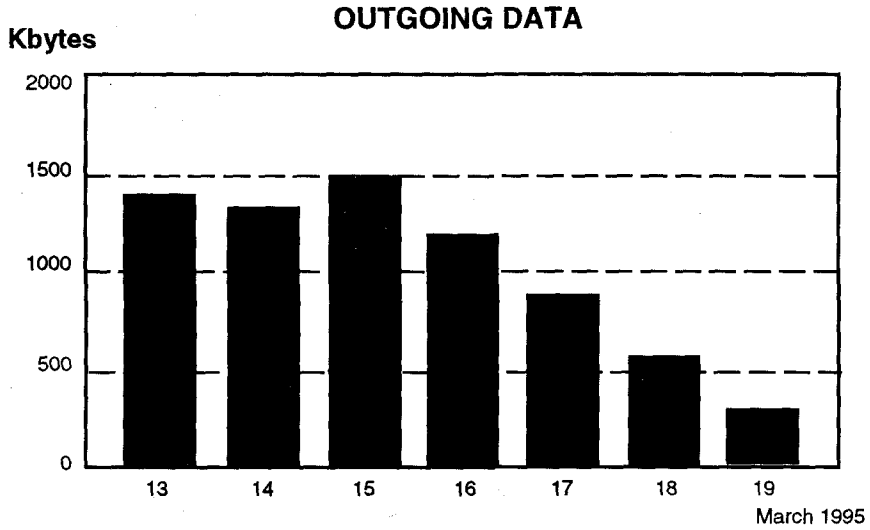


**DELNET E-Mail Users**

American Centre Library (USIS)  
B.B. Dixit Library (AIIMS)  
Bharat Heavy Electricals Limited (TEC/INF SERVICES)  
British Council Library (British Council Division)  
Central Road Research Institute  
Central Secretariat Library  
Centre for Bio-Chemical Technology (CSIR)  
Centre for Human Sciences, Embassy of France  
Centre for Policy Research  
Council of Scientific and Industrial Research  
Defence Science Library (DESIDOC)  
Department of Electronics  
Department of Science and Technology  
Devahuti Damodar Library of Indian Civilization  
India International Centre  
Indian Agricultural Research Institute  
Indian Institute of Advanced Study, Shimla  
Indian Institute of Mass Communication  
Indian Institute of Public Administration  
Indian Institute of Technology  
Indian National Science Academy  
Indian Oil Corporation Limited (Refinery Division)  
Indira Gandhi National Open University  
Institute for Defence Studies and Analyses  
Institute of Management Technology, Ghaziabad  
Jawaharlal Nehru University  
National Council of Cement & Building Materials, Ballabgarh  
National Council of Educational Research & Training  
National Documentation Centre (NIHFW)  
National Information System for Science and Technology  
National Institute of Educational Planning & Administration  
National Institute of Immunology  
National Institute of Punjab Studies  
National Institute of Science, Technology and Development Studies  
National Physical Laboratory  
National Science Library (INSDOC)  
National Social Science Documentation Centre

Planning Commission, Govt. of India  
Press Trust of India  
Publication & Information Directorate  
Ratan Tata Library (Delhi School of Economics)  
Shastri Indo-Canadian Laboratory  
Solid State Physics Laboratory  
Sri Ram College of Commerce (University of Delhi)  
Tata Consultancy Services  
Tata Energy Research Institute

**A SAMPLE OF OUTGOING AND INCOMING  
E-MAIL TRAFFIC (MARCH 13-19, 1995)**



**Director's Visit to the Libraris and Networks in UK,  
USA and Canada**

The libraries in UK, USA and Canada have been adopting different approaches to networking though their goals are similar. BLCMP in Birmingham has now 13 million bibliographic records of books, serials, music, AV, maps etc. in its databases and its catalogues get a hit rate of above 90 per cent with more than 60 customers comprising public libraries, college libraries, university libraries and national and special libraries. BLCMP has introduced EDI clearing house service in about 25 libraries. Its new software TALIS now has a Z39.50 interface which enables its members to download free of charge data from INTERNET databases that are available in the public domain.

London and South Eastern Library Region (LASER) promotes library cooperation among 80 libraries in London and South East England and has more than three million records in its databases. The participating libraries can add their location codes in union catalogue. For Indian-language materials they have developed CILLA (Cooperative of Indic Language Literature Authorities). Subject approach to its database is being introduced on CDs.

The British Library has nearly 21 databases holding 15 million bibliographic records. Blaise-line, the automated information service of the British Library services offers search service to its users. I was able to sign a preliminary MOU agreement with the British Library under which DELNET members could access Blaise-line databases online once the experimentation was successful. British Library holds one of the largest patents databases in its Patents Information Network. They provide access to about 35 million patents per year known as Patents Express and Patents Online. These services are very popular around the world. The British Library is also developing the Business Information Network which is rapidly growing. Both Information and Data Services (BIDS) offers several services in the field of public health, medicine and also provides access to British Library databases. For medicine alone, BIDS covers 3300 journals from 110 countries and includes abstracts for 70 per cent of its records. BIDS is ready to offer its database services to DELNET at a reduced fee if a sizeable number of libraries show interest.

The Canadian Institute for Scientific and Technical Information

(CISTI) holds a million books and conference proceedings, over 50,000 serials and millions of technical reports from around the world, offers a number of services including CAN/OLE (Canadian Online Enquiry Service) and document delivery. CISTI maintains a union catalogue of 50,000 serial titles with over 20,000 current titles. There is no union catalogue of books made by CISTI, but DOBIS and UTLAS are two main union catalogues of books with location details. DOBIS is mostly handled by the National Library of Canada and the UTLAS is a commercial library network. The National Library of Canada promotes decentralised networking through the use of protocols conforming to the Open System Interconnection (OSI) reference model. It has nearly 9 million bibliographic records in its online database, it adds 800,000 to 1,200,000 records per year to its database and holds 1 million authority records. Besides its 275 concurrent users, it has 600 external institutions across Canada that use its union catalogue. Depending upon the query, the response time is 2 to 20 seconds.

CISTI provides an indepth ILL service to non-Canadians who need Canadian publications. It may be of interest to Delnet users that CISTI provides Canadian Scientific Numeric Database Service (CAN/SND) Online at a very cheap rate to users outside Canada on several scientific subjects. It is an SDI facility and worth trying, especially when our libraries can't afford to subscribe to every journal in the field of our interest. Automation of libraries is advanced even among the public libraries in Canada. Ottawa Public Library which has an online database of about 1 million volumes, offers a highly advanced service to the general public.

The US Department of Education has been promoting a vigorous policy on library networking. It offers networking grants, supports inter-library loan projects, automation and retro-conversion projects, resource sharing schemes etc., besides providing regular federal grants annually to the public and academic libraries. For instance, the Department supports the public libraries in their use of INTERNET in a big way. According to the final report of the National Commission on Libraries and Information Science published in June 1994, 20.9 per cent of the public libraries are already connected to INTERNET. More federal grants are being arranged to let all public libraries join INTERNET.

If we look at the enormous progress made by OCLC, we can claim that if INTERNET is enveloping the world through its E-mail networks, OCLC is its counterpart on the library side, which brings in more and more libraries into its fold the world over. It has 30

million bibliographic records with 520 million holdings/ locations in its union catalogue. The database increases at the rate of 400,000 records every month. The retrieval time taken by its system for a query is not more than a few seconds.

VALNET is operational at Veterans Affairs Library and offers information on health care. It depends on its creation of data on OCLC through a contracting agency that creates its union catalogue on CDs. These CDs are updated twice a year and distributed to the libraries. There are about 700,000 books, 60,000 periodicals and 104,000 audio visual programmes in its databases.

Similarly, FEDLINK Network Operations (FNO) functions as a regional library network of 825 federal libraries that are members of OCLC. Created in 1978, it offers to federal agencies cost-effective access to information. FEDLINK which has its office at the Library of Congress, makes liberal use of OCLC data and does not propose to create another network database to avoid duplication of efforts. It organises training programmes and provides procurement and accounting services as well. However, in the strict sense, FEDLINK may be regarded as a regional network which besides supporting federal libraries, also promotes and uses OCLC to the maximum.

Maryland, which adjoins D.C., has two important network projects going on simultaneously. The first one, LIMS (Library Information Management System) operates at the University of Maryland. Besides INTERNET connections, it holds the union catalogue of its 13 participating libraries which is called VICTOR. The libraries download the bibliographic data and maintain their own catalogues. The LIMS software of LIMS supports both inhouse operations of libraries and the union catalogue and ILL operations. With OPAC, access to national and international databases, and Gopher LIMS provides excellent service to nearly 35,000 students and faculty members of the university.

The other experiment in Maryland being conducted by the Maryland State Department of Education is quite different. It provides INTERNET access to the users free of charge through non-commercial service SAILOR. Citizens of Maryland can access information on all subjects including arts and entertainment, music, health and medicine, legal matters, federal government, historical documents, national issues, etc. With nearly 200 incoming lines, SAILOR is already providing free INTERNET services including TELNET and USENET. Maryland State Library Network Coordinating Council is electronically connecting Maryland's libraries and

providing service to users. They depend more on the manipulations of the software which is yet to be developed. According to Barbara F Smith, the most energetic promoter of SAILOR, SAILOR Telecommunication Network will be an extension of the one established by the University of Maryland and it will be completed in two phases when access to information is possible through a local phone call. This work may be completed by June 1995.

I also visited WRLC (Washington Research Libraries Consortium) in which eight university libraries are participating. Like the University of Maryland Network, WRLC also creates its union catalogue. With 2.4 million records in it, it offers services to undergraduate and graduate students and faculty of the universities. The services offered include access to library catalogue (CATS), five databases which provide journal citations and abstracts and access to INTERNET.



*Research Advisory Committee*

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