NISSAT

NEWSLETTER

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NISSAT Newsletter, published quarterly, is the official organ of NISSAT, and Is aimed at disseminating information concerning programmes, activities and achievements of NISSAT as also of the various centres functioning under it. Additionally, it attempts to project major developments in the field of information science at national and international levels.

Communications concerning the Newsletter may be addressed to Dr A. Lahiri, Jt. Adviser (NISSAT), Department of Scientific & Industrial Research, Government of India, Technology Bhawan, New Mehrauli Road. New Delhi-110016. Material published in the Newsletter can be reproduced with due acknowledgement to the source.

IT : What the Decade Portends

It is safe to predict that the information technology revolution would continue through this decade also. At the component or building-block level, 256 megabit chip is likely to be the state-of-the-art in semi-conductor memory compared to one megabit of today; gigabit chips will be under development. Thousands of micro-processors each with above 100 million transistors, working in parallel will help reach a speed that is beyond comprehension of old generation computer users.

In respect of information technologies at system/ product level, the developments are likely to be less spectacular. Voice recognition systems replacing the present day dictating facilities to a large extent, would be a major market entry. The application of optical storage technologies may proliferate but it would co-exist with conventional magnetic storage. CD-ROMs, WORMs, erasable optical disks, especially the multimedia varieties (combining text, graphics, video and audio will develop niche markets. Full text journals and monographs will be commonly available on-line or on optical disks. In parallel with electronic publishing that would progressively replace paper prints, voice publishing (materials being read out) would be significant especially for non-technical text. In keeping with the phenomenal increase in the speed of information handling and in storage capacities, the data transmission rate may reach 1-10 gigabit per second compared to 64 kilobit per second of today. Fibre optics would be most extensively used. In entertainment electronics, High Definition Colour Television which has just entered the market in Japan (at a price which has baffled market watchers) would be most entertaining.

A vast majority of trie population especially those in developing countries have not yet reaped the benefits from the rapid advances in technology. Perhaps in this decade, the information technology revolution will reach the "consolidation phase". While online and offline database services will be increasingly used by professionals, business and industries, and services like travel and tourism, banking etc., public databanks and videotex services for'daily use information (like those provided by the French Minitel system) may be available in all major cities. Electronic mail tele-conferencing with graphics, audio and video images will be a generally accepted method of interaction. Similarly the trend in the use of computers at home and conduct of office work from remote home locations will gain momentum. While robotics will make industrial life easy, artificial intelligence interfaces will make the information service more user-friendly. In sum, the trend suggests that the fruits of revolution wit! pass from elitist to populist regime.

The question now is where would India stand? At the component level, India is way behind and it is unlikely that the gap would ever be bridged. For systems or product design, Indians (resident or otherwise) have demonstrated capabilities. However, India could cash in on her enormous skills and productive (and hitherto non-productive) educated population in generating information services. During the Eighth Five Year Plan, the information programmes must,therefore, be designed accordingly.

— A. Lahiri

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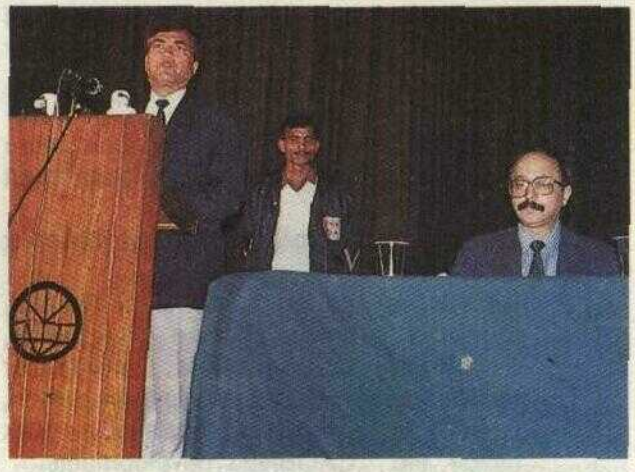
CONTENTS

Indo-British Meet: Focus on Library Networking

The library networking drive in India which owes its inception to the sustained efforts in recent years of National Information System for Science and Technology (NISSAT) of the Department of Scientific and Industrial Research, Govt. of India received fresh impetus with the convening last month (Jan. 14-15) of Indo-British Meet on the subject. Jointly organized at the India International Centre by DELNET (Network of Delhi Libraries), the British Council Division of the British High Commission in India and NiSSAT, the two-day Meet was attended by 45 selected participants from all over India. These included two experts from Britain invited by the British Council Division. Librarians, information scientists and computer and telecom specialists constituted the Indian contingent.

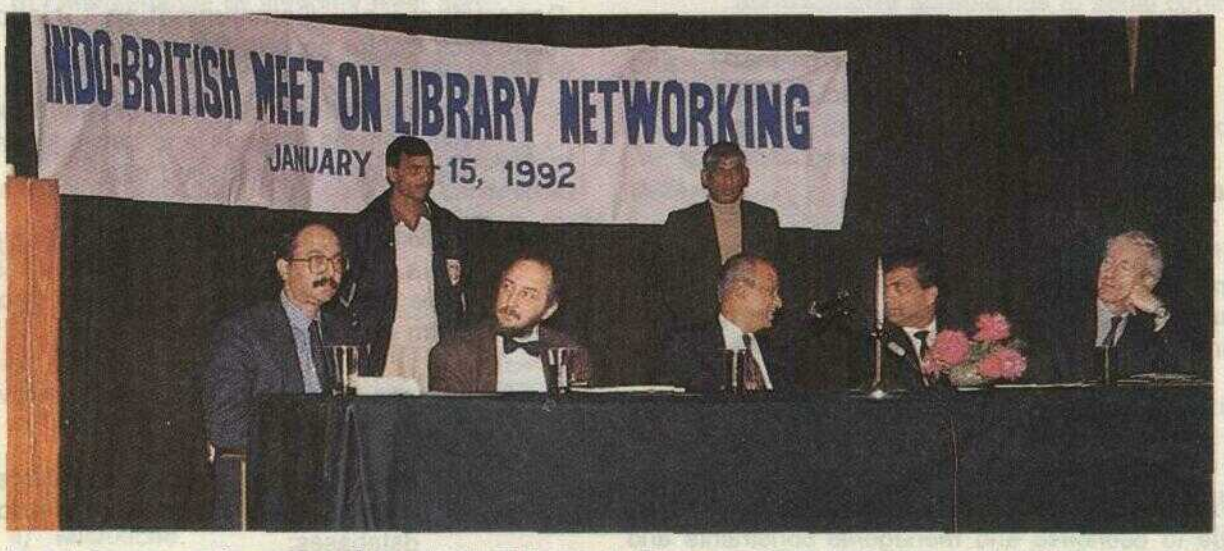
Inauguration

Inaugurating the conference, India's Minister of Stale for Communications, Shri Rajesh Pilot observed that the information, stored in the libraries should move to the users. Library networks would help in this task and would enrich the knowledge available at the educational, service and industry points in urban and rural areas.



Library networks would enrich the knowledge available at educational, service and Industry points in **urban** and rural areas
— Shrl Rajesh **Pilot**

Mr Robert Arbuthnott, Minister, Britisii High Commission touched upon the developments in communication networks in the U.K. and their application to library networks. This experience may help India in promoting the spread of networks using a variety of skills and software available to India's library and information community.



At the Inaugural Function (/(or) Mr H.K. Kaul, Convener DELNET, Mr John Smith, National Project Officer, U.K. Office for Library Networks, Mr A. Madhavan, Director, India International Centre, Shri Rajesh Pilot, Union Minister of Communications and Mr Robert Arbuthnott, Minister **for British Council Division, British High Commission.**

Earlier Shri H.K. Kaul. Convener DELNET and Librarian, India International Centre, gave a resume of DELNET activities while welcoming the distinguished gathering. Shri A. Madhavan Director, India International Centre, who presided over the meeting, made a few Introductory remarks.

The deliberations of the two-day meet were conducted in six technical sessions. These dealt with:

1. Essential requirements of library networks;

2. Resources needed in terms of finance, human skills, service supports, development potentials, computer facilities, network communication design, internal and external protocols of network usage, etc., CALIBNET developments.

3. Software resources developed for use in Computer Communication networks for library systems and services.

4. Bibliographic standards needed for Computer Communication in relation to library networks such as CCF, UK-MARC, UNI-MARC and other international standards available for bibliographic record format.

5. Varieties of Communication Protocols in the form of software and hardware developments.

6. Need for developing autonomic networks in centres such as DELNET and CALIBNET with financial support of NISSAT.

Recommendations

The deliberations at the technical sessions and the discussions that followed led to the formulation of the following recommendations aimed at promoting library networking.

I Essentials of Library Networking

Considering that resource-sharing of library collections and services has become a necessity due to economic and managerial constraints and noting that modern communication network technology is becoming cost-effective and operational at national level in India, it is recommended that:

An integrated management structure be established in each metropolitan network in India and the following services be promoted:

1. Create and maintain a computer-based shared catalogue and maintain central authority records.

2. Promote CAS and SDI services in libraries.

3. Create partial databases of external resources.

4. Maintain an user interface application software coupled with hardware and communication equipment.

5. Promote the standardisation of records.

6. Establish a well structured professional manpower facilities to maintain the network centre.

NISSAT should be able to mobilise the financial resources needed for managing their network on a continuing basis with partial recovery of the fund from service charges.

II Communication Infrastructure

Noting that resource-sharing is a communication intensive process, it is recommended that the departments and institutions like Department of Electronics, Department of Communication, National Informatics Centre and NISSAT should:

1. Arrange effective E-mail communication between the libraries and networks within the country at subsidised rates;

2. Provide facilities to international vendors in India and allow specialised libraries to have access to world databases through them at subsidised rates.

3. Arrange coordination in functional activities and services by;

   a) Enforcing that uniform standards be adopted and maintained for creation of databases;

   b) Arranging access to external databases, and if necessary, downloading of the required databases;

c) Creating a system by which networks can share databases on acceptable terms;

d) Developing databases on specialised themes that are updated periodically for use by specialist clientele in the country;

e) Promoting the marketing of network products, and financial self sufficiency for network operations.

III Network Products and Services

Considering that metropolitan library networks should develop a variety of products and services for benefit of its clientele, it is recommended that:

In a network the preferences may be given to:

a) Shared cataloguing;

b) Preparation of union catalogues;

c) Switching over to on-line cataloguing as rapidly as feasible;

d) Provide for full screen editing;

e) Preparation of the list of latest additions;

f) Retrospective conversions;

g) Maintenance of authority files; and

h) Approved standards for the input of Indian materials.

Further, it may be added that production of catalogue for exchange etc., could be confined in the beginning to magnetic floppies and later for commercial purposes extended to:

a) Card form;

b) Book form;

c) Magnetic tapes;

d} Optical discs; and

e) Microfiche.

For this purpose, the networks should steadily be augmented with the following communication facilities in a phased manner

a) Tele-facsimile;

b) Tele-conferencing;

c) Offering of databases in CD-ROM;

d) Simple user interface (OPAC);

e) Availability of special display formats for different types of libraries, and users;

f) Community information and library network news.

IV Support **for Library Operation and** Services

Recognising that metropolitan library networks are going to demand exacting information processing and performance, it is recommended that:

a) Circulation module should provide lor fully on-line automated services with backup on-line charging and discharging facilities with managerial controls for the same.

b) Acquisition module should provide for fully on-line ordering, stock taking and servicing for further processing of documents.

c) Serials control module for on-line registration, reminders, union-catalogue services, updating of the same, effective document supply services, besides administrative approaches to serial control.

V Governance and Management

In order to promote each metropolitan network as a stable body for effective governance, it should:

i) be registered as a separate body with the financial support of NISSAT and a representative of NISSAT permanently on its Governing Board;

ii) function for some years under the supervision of a host institution; and

iii) develop close bonds between the networking libraries. It is important that the participating libraries adhere to the memorandums of understanding that cater to their mutual interests and are based on straightforward and clear-cut principles.

Further, they have to be flexible enough to be updated and adjusted to changing library environments. It is, therefore, recommended that:

The Memorandum of Understanding (MOD) should take into account:

1. Copyright and security requirements;
2. Proprietary rights;
3. Licenses granted to the participating libraries by the networks;
4. The modes of acquiring equipment by the participating libraries;
5. Preparation of an operating manual;
6. Amount of registration fee and annual fee to be paid by participating library;
7. Fee to be fixed for extra-use over and above that basically outlined;
8. Compensation to be paid to a big library which is mostly offering its materials and not receiving much in return;
9. Maintenance and alterations;
10. Warranty;
11. Termination of agreements;
12. Indemnity, disputes, etc.

VI Relation Between ERNET and JANET for Academic Transactions

Considering with interest the useful developments that have taken place in respect of library networking and also the end-users inter-mediation in academic and research programmes and also considering that the ERNET programme of India, which is rapidly connecting many of the educational institutions and also SIRNET promoted by INSDOC for E-mail and other electronic transmission, it is recommended that:

NISSAT in collaboration with other organizations should actively promote and provide the necessary infrastructure to the libraries all over India, to develop a culture to use the E-mail transactions, that would ultimately improve response time nationally and internationally. It is also recommended that the library and information professionals and academicians in the programme should make efforts in developing attitudes helpful to quick responses to requests through E-mail in their own institutions.

VII Training and Education In Electronic Communications Network

Considering the variety of knowledge and skills needed for effective and efficient use of electronic communication facilities for library and information purposes, it is recommended that,

NISSAT in collaboration with other organisations should promote and organise short-term courses for library and information professionals on the E-mail, videotex! and other network facilities available in India, and in view of onset of electronic revolution in communication it is recommended that the library and information science schools in India should develop curricula, and teaching network facilities as a specialised course. NISSAT should provide infrastructure on a selective basis to some library schools and offer curricula modules for different types of courses in library automation and networking.

The meeting ended with a vote of thanks proposed by Dr A. Lahiri, Jt Adviser, NISSAT.

UNESCO/NiSSAT/NISTADS Regional Workshop on New Information Technologies: Machine Translation

The National institute of Science, Technology and Development Studies (NISTADS) organised the Regional Workshop on New Information Technologies; Machine Translation with Support from United Nations Educational, Scientific & Cultural Organisation (UNESCO) and National Information System for Science & Technology (NISSAT).

The New Delhi Workshop (16-20 Dec. 1991) was held in pursuance of the recommendation of the Regional Network for the Exchange of Information and Experiences in South-East Asia and the Pacific (ASTINFO).

The main objective of the regional workshop was to share information on

- Status of machine translation in ASTINFO member countries
- Basic concept of translation system
- Software for machine translation
- Machine translation processes
- Dictionary construction
- Integrated machine translation system

The workshop also, attempted to identify

- Nature and type machine translation system needed for the countries of the region,
- R S D projects in the area of machine translation and suggest mechanism for undertaking coordinated projects.

There were altogether 29 participants from ASTINFO countries namely, Bangladesh, India, Indonesia, Malaysia, Nepal and Vietnam, and Germany.

The Workshop was inaugurated by Dr Ashok Jain, Director, NISTADS, New Delhi.

In the technical schedule, 15 papers were presented and discussed. Demonstration of software was organized and future action plan was considered.

Dr Ashok Jain acted as the Coordinator and Mr A. Wahid as the Secretary for the Workshop.

The Chairmen for the Technical Sessions were: Prof. R.M.K. Slnha (NT Kanpur, India), Dr Thomas Schneider (Siemens Nixdorf information Systems, Germany), Dr A.K.M. Ahsanullah (BANSDOC, Dhaka, Bangladesh), Ms Rosa Vidyavan (Jakarta, Indonesia), Mr B.D. Shreshtha (Kathmandu, Nepal). Dr S Raman (IIT Madras, India), Dr Om Vikas (DoE, India) and Dr Nguyen thee Thu (Hanoi, Vietnam).

Mrs S. Ravindran (NISSAT) proposed a hearty vote of thanks at the conclusion of the Workshop.

Recommendations

The Recommendations emerging from the discussions at the Workshop related to machine translation, terminology and training. These were expected to improve flow of information and facilitate technology transfer at the international level. These included the following:

1. Technical collaborations should be established in the area of machine translation among member countries of ASTINFO. Development of tools and components to support machine translation and technology transfer in this area should be undertaken with manpower training as a major component.

   To reduce costs and development time, existing tools may be used, wherever necessary and possible. A Study Group may be formed to evaluate the suitability of existing systems.

2. Computational Linguistics is an emerging and interdisciplinary area, and a pre-

Delegates from Bangladesh, Germany, India, Indonesia, Malaysia, **Nepal and Vietnam attended the MT Workshop**

requisite for machine translation. Hence, educational programmes in computational linguistics should be supported by UNESCO in this region.

3. UNESCO should sponsor translation-related studies. These studies may typically include identification of translation needs based on population segments, subject-wise breakup, source and target language directions, etc. The studies should include national as well as regional perspectives.

4. It is important to evolve a common electronic dictionary format for applications in computational linguistics, such as machine translation. Therefore, a workshop of experts should be organized urgently in this region by UNESCO to standardize the format of electronic dictionaries.

5. UNESCO should help in acquiring the sets of terminology currently available in the databases in Europe, America and Asia. This would improve the S & T information accessibility from non-native sources.

National agencies may utilize the resources of these terminology databases in the development of terminology in the national languages.

6. The classification system and the entry formats should be suitably adopted from terminology databases already operational in Europe, America and Asia to facilitate the exchange of terminological information.

7. Translators should be encouraged with suitable incentives by member countries to contribute terminological information to terminology databases.

8. UNESCO should sponsor a study group from member countries to periodically review the classification systems and entry formats, and to coordinate the updates coming from different countries in order to ensure compatibility.

9. For exchange of information, standards such as SGML and ODA should be evolved for use by ASTINFO member countries.

XI SIS Annual Convention: Current Trends in Information Technology Surveyed

The National Chemical Laboratory, Pune hosted the Eleventh Annual Convention and Conference of the Society For Information Science during 20-22 Jan. 1992. Current trends in information technology and their impact on the information science in India constituted the theme of tne three-day conference which mainly centred round database creation, uniformity of formats, users' requirements, impact of DTP technology, data on-line or off-line, networking of national services and marketing strategies.

Over 85 information and library science professionals, scientists and technologists surveyed the current world information scenario and considered the impact of developments on the home front. The discussions, spread over five technical sessions, culminated in a set of recommendations aimed at faster and integrated scientific development of the country through a network of state-of-the-art information centres and services. Twenty-four papers were presented at these technical sessions.

Inauguration

The Chief Guest, Professor Arun Nigavekar, Director, Education Media Research Centre (EMRC), University of Poona while delivering his inaugural address traced the changes which had taken place in information technology in the past four decades and challenges that are still to be met. He suggested that the SIS should take an assertive step to create awareness of the fast moving changes and insist on setting up of an Advisory Panel on Information Technology at the highest level to plan for future frends. He was of the opinion that the SIS should prepare a paper suggesting ways and means of setting up of information networks in the country, with uniformity in standards for transfer of data compatible to systems already in existence at other centres and for the preparation of suitable software, wherever necessary. Training courses may have to be also undertaken by the Society for providing adequate manpower to tackle the enormous task ahead.

Inaugural Address: Prof. Arun Nigavekar

Shrl N. Vtttal, Secretary **DOE at the** Valedictory **Function**

Only the future course of action might reveal what kind of society would be emerging ultimately, whether a post-industrial society, an information society or a technotronic society. At the time when the world is heading for change, India could not remain a silent spectator, it was, therefore, high time we recognised this fact and took necessary steps to face the situation.

Dr Shiv Ram, Deputy Director, NCL presided over the inaugural session.

Earlier SIS President S. Nagarajan welcomed the distinguished gathering and gave a brief resume of the current trends in information technology in India and stressed the need for optimum utilization of resources available in the country. He outlined measures to identify the existing resources, build up the infrastructure and train the required manpower to cope with the challenges posed by the emerging trends in IT.

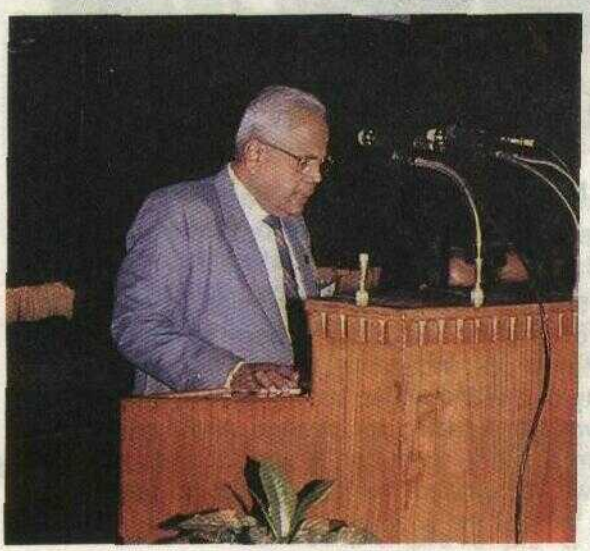
Fellowships

The Chief Guest gave away the Awards of SIS and Young Information Scientists for 1991 to the following recipients.

1. **Prof. T. Viswanathan,** Director, INSDOC, New Delhi was conferred the Fellowship of the Society for 1991 for his outstanding contribution in creating Bibliographic Databases at INSDOC and setting up ot SIRNET at 14 National Laboratories of CSIR.

2. Dr Ramesh **Dutt** Sharma, Chief Editor (Hindi), ICAR, New Delhi was conferred the Fellowship of the Society for 1991 for his outstanding contribution to agricultural information in Hindi through mass media like Doordarshan and All India Radio and for his excellent editing and publication of popular science periodicals in Hindi for disseminating agricultural information among rural people.

The Young Information Scientists Award,



SIS President S. Nagarajan welcomes the delegates

The Award Winners: *(from top)* Fellowship Dr R.D. Sharma, Chief Editor (Hindi) ICAR; Young Scientist's Award, Shri N.V. Sathya-narayana (Informatics India, Bangalore) and Smt Rekha Mlttal, INSDOC (CSIR).

instituted in 1989 in memory of late Shri A.S. Raizada, Founder Secretary of the Society, was given to:

1. Shrl N.V. **Sathyanarayana,** President, Informatics (India) Pvt. Ltd., Bangalore, for his contribution to information technology in India by installing CD-ROM Technology for the benefit of R & D workers and for setting up linkages with International databases (DIALOG) through on-line.

2. **Smt. Rekha MIttal** for her contribution in setting up on-line databases for MAPA (Medicinal and Aromatic Plants Abstracts) using the data available at PID (CSIR).

Shri P.O. Bose, Secretary, SIS proposed a vote of thanks.

Open Session

At the open session, held after the inauguration Or, Narendra K. Sehgal, Director, NCSTC, DST, New Delhi and a recipient of the Kalinga Award for 1991 gave an illustrated talk on the role of NCSTC in the communication of S & T to the masses. He outlined the future activities of the Council in taking out Vigyan Yatras and bringing out newsletters in Hindi and other regional languages.

Technical **Sessions**

The Technical Sessions which followed dealt with topics detailed as under:

Session I: Database creation, components required, uniformity of formats, costs involved. *Chairman* — Prof. S.G. Mahajan, Head, Library and Information Science Dept, University of Poona.

Session II: Users' requirements, services offered, impact of DTP, use of computerised databases, policy outlines. *Chairman* —Shri I. R. Kumar, Dy. Manager Informatics, NRDC, New Delhi.

Session III: Data on-line and off-line telecom operations involved. Fees charged. *Chairman* — Prof R.G. Gupta, Dean, School of Computer Science, JNU, New Delhi.

Session IV: Networking of national services, problems and prospects. *Chairman*— Shri P.C Bose, Project Leader, MANAGE, NIRD, Hyderabad.

Session V: Marketing strategies, publicity of products offered, need for restructuring services to meet demands. *Chairman*—Shri DN Jetly, Regional Manager, ESPL, Bombay. Main Speaker: Shri Veer Sagar, Chief Executive, DCM Data Products.

Recommendations

Discussions at the technical sessions culminated in a set of recommendations formulated at a special session held under the Chairmanship of Dr S. Shiv Ram; S/Shri R.S. Singh (Head NICHEM, NCL and Local Convener for the Convention) and Kuldip Chand, Vice-President, SIS were the Co-Chairmen.

Some of the main recommendations were:

1. A comprehensive paper should be prepared on the information policy of the country for consideration by the Union Government. An Information Technology Advisory Panel may be constituted to assist the Cabinet as in other advanced countries.

2. For an integrated scientific development of the country, information centres in various disciplines (other than the existing NISSAT centres) should be identified.

3. The Govt. of India should provide adequate incentives for the proper growth and development of indigenous manufacture of I.T. software and hardware both for domestic and export markets. Customs duty for the import of both software and hardware components of I.T. should be reduced.

4. To improve the quality of life of the rural masses and to take full advantage of the technologies developed lor meeting the challenges of the 21st century in respect of fuel, food and fibre, a well organised rural technical network providing for a package of services for the benefit of the rural population and for backward areas should be developed.

5. Well designed computer education and information technology courses should become an integral part of the curricula of

(he library and information science education in India at all levels including in-service training ot the existing professionals.

6. Telecommunication facilities need to be strengthened significantly for proper growth, development and functioning of on-line services and various networks.

7. A committee may be set up for the standardization of formats for the creation, maintenance and use of the computerized databases. A separate workshop may be organised on the subject at the earliest.

8. A National Commission for L1S, with representatives of all concerned professionals should be set up by the Govt. to address itself Ihe requirements and problems of National Library and Information Science Networks in India. The Commission should be asked to submit its report within a specified time limit.

9. Government should allocate adequate funds lo the professionals societies to organise, train and promote networking culture in India.

fO. Financial & infrastructural support and facilities may be provided to professional societies in the field of IT. for organising and conducting seminars, workshops symposia and training courses for human resource development.

1 1 . The Indian Copyright Act, 1958 requires to be modified suitably to protect the interests of the authors and producers of original documents through various electronic media.

It was resolved that these recommendations be forwarded to the appropriate authorities for implementation.

Concluding Session

At the concluding session of the Society, which was chaired by Dr R.A. Mashelkar, Director, NCL, Shri N. Vittal, Secretary, Deptt. of Electronics; Govt- of India, addressed the participants. He outlined measures to face the impact of information technology in the country. He was of the opinion that by the end of 1993 latest information about the global developments in science and technology would be available in the research institutions of India through the efforts of DOE. For this he had proposed to the Planning Commission that every Ministry should allocate two per cent of its budget for the development of information technology and its applications in the country. He also referred to some success in the country in the application of information technology like introduction of E-Mail by the Postal Department. Dr R.A. Mashelkar said that to make country self reliant data on indigenous technology, processes and products should be built up and industry should be made aware of the same.

In his vote of thanks, the Secretary, SIS, requested the DOE and other Govt. agencies to extend full support to the activities of the Society in promoting information technology in the country. hfe expressed deep gratitude of the Society to the Director, NCL, the Local Convener, Shri R.S. Singh and his colleagues for the elaborate and excellent arrangements made for the conference which made it a memorable occasion.

IT Applications to LIS : NCSI Training Course Bangalore

The National Centre for Science Information (NCSI) set up at the Indian Institute of Science, Bangalore has resumed conducting the one-year training course to prepare library and information professionals with adequate knowledge of computers and information technology applications. The course objectives are:

i) To provide the students with full comprehension and appreciation of applications of information technology to library and information services, and

ii) To impart theoretical and practical knowledge in understanding, selecting, designing and utilising the information technologies for effective dissemination of library and information services.

The Centre

The Centre, which is fully funded by UGC was set up at HSc, Bangalore to:

1. Create Current Awareness Service among scientists working in Indian Universities/ Colleges by providing an authentic and up-to-date abstracting services in the areas of Physics, Biological Sciences, Chemistry, Mathematics and Earth Sciences.

2. Provide to the users, on request, photocopies of current papers.

3. Educate the users, in generating queries for their needs, for an optimal utilisation of the information services.

The Current Awareness Service to the academic community is given by way of Selective Dissemination of Information (SDI) based on the appropriate abstracting/indexing periodicals published in computer readable form on magnetic tapes, At present NCSI has a 32-bit 80386-based mini computer system running on UNIX operating system for processing the database tapes. An IBM-PC LAN with 4 microcomputers as the nodes is also available at the Centre. The scope of the information services has recently been enhanced by providing Retrospective Search Services also. An on-line search facility on DIALOG information Services has been commissioned, besides acquiring a CD-ROM Work Station along with selected databases for the purpose.

Fifth Training Course 1992-93

Admissions to NCSI's fifth one-year Training Course in 'Information Technology Applications to L & I Services' for the academic year 1992-93 will take place around July 1992.

The minimum qualifications for admission to the course are:

A Master's degree in Library and Information Science/Associateship in Information Science from DRTC/INSDOC, with a Bachelor's Degree in Science,

OR

A Master's Degree in any branch of Science with a Bachelor's Degree in Library Science.

A stipend of Rs. 1,2007- per month tenable for all the 12 months of the training programme, is given to all the candidates who are not sponsored/ deputed by any institution Total number of seats available is six, out of which two are reserved for candidates belonging to SC/ST category. The admissions are based on a wrilten lest and an interview to be held at the Indian Institute of Science.

The training programme includes class room lectures, invited lectures, demonstrations, self-learning exercises, and course assignments. An important feature of the programme is that the trainees will receive hands-on training through participation in all the relevant activities of NCSI at the appropriate periods during the course.

A summary of this year's course content is given below:

1. Introduction to computer concepts.

2. Information Technology and S & T Information Handling.

3. Computer Organisation,

4. Programming and data structures through PASCAL.

5. MIS & Database Management Systems.

6. IT Applications-I: Use of Inlormation Systems & **Databases.**
   Bibliographic Record Formats.
   Searching Bibliographic Systems.
   CD-ROM Databases.
   Computerised Catalogues —CDS/ISIS
   On-line Searching.
   Current Awareness and S.D.I. Systems.
   Using Electronic Mail Systems.

7. Information Processing and Retrieval.

8. Expert Systems and Information Retrieval.

9. Library Automation.

10. IT Applications-ll: Creation of Bibliographic Database/Library Catalogues.
    Using software package—dBASE, UNIFY and CDS/ISIS.
    Using a programming language (Pascal orC)

11. Data Communications lor Library & Information Services.

12. Programming in 'C'.

However, interested institutions and individuals can write for further information to: The Chairman, National Centre for Science Information, Indian Institute of Science, Bangalore-560 012.

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I, Dr A. Lahiri hereby declare that the particulars given above are true to the best ol my knowledge and belief.

March 1992

Sd/- A. Lahiri
Signature of Publisher

Use of Scientific and Technical Secondary Periodicals in Research and Academic Libraries in Delhi — Summary Report

The Institute of Social Analysis and Communication, New Delhi, recently conducted a study sponsored by the Department of Scientific and industrial Research on the use of abstracting/indexing periodicals In selected Delhi libraries. It has just submitted the report entitled "A pilot study on the use of scientific and technical secondary periodicals In research and academic libraries In Delhi". The following is a brief resume of the findings of this study. — *Ed.*

1. Study Sample and Data

The data for the study were obtained through a sample survey in 9 selected institutions with a total sample size of 267 scientists. The selected institutions were: All India Institute of Medical Sciences (AIIMS); Central Road Research Institute (CRRI); Delhi University (DU); Indian Agricultural Research Institute (IARI); Indian Institute of Technology (NT); Jamia Millia Islamia (JMI); Jawaharla! Nehru University (JNU); National Physical Laboratory (NPL); and Vallabhai Patel Chest Institute (VPCI). The broad subject-wise distribution of the sample was as follows: Agricultural Science (12.77%); Chemistry (12.05%); Engineering (9.76%); Life Sciences (29.40%); Medicine (11.40%).

Data were collected simultaneously from scientists and librarians, through separate questionnaires, and also through a series of observations in each library.

2. How Active the Scientists Are

To assess how active the scientists in the sample are and to get some details of their information behaviour, a number of questions were asked It was found that 48% of them had published papers in 1990 and 1991 and about 14% had published in 1989 or earlier. It was also **observed** that scientists working in research institutions, such as CRRI and NPL, had a slightly higher publication rate **than** their counterparts in academic-cum-research institutions.

3. Where the Contributions were Abstracted/ Indexed

When **asked** where they saw their recent papers abstracted/indexed, the titles mentioned frequently **were;** *Current Contents, Physics Abstracts, Chemical* ***Abstracts,*** *Index Medicus, Biological Abstracts.* A number of other titles were also **mentioned, most** of them once **only.** This was, in a way, an indirect method of finding out the most used titles.

4. Most Preferred Abstracting/Indexing Periodicals

On the basis of response to a direct question on the preferred abstracting/indexing periodicals, a list of most preferred titles was drawn up. As each respondent was **asked** to mention **four** titles, the list was prepared **after** giving **'preference** weight' to each title. The first five titles in the list get very high scores, as all of them are being used by scientists in a number of institutions. The /titles are; *Current Contents, Physics Abstracts. Biological Abstracts, Index Medicus,* and *Chemical Abstracts.* It will be observed that the same five titles reappear again, with slight change in their sequence. The popularity of the Current Contents (all series taken together) is quite obvious. Not only it has the highest score but it is being preferred in 8 institutions, out of 9 in **the** sample. *Physics Abstracts,* although obtained the second highest score, is being **preferred** in **4** institutions only. *Chemical Abstracts,* although came in the fifth position in terms of total score, is !he only title which is being used in all the nine institutions. Another notable feature of the most preferred list is the occurrence of the *Science Citation Index* within the first ten titles.

5. Use of Other Libraries

One significant finding of the study is that scientists in all the 9 institutions have been using a number of libraries in addition to their own institutional library. In AIIMS 78.94% of the scientists use 'other libraries' followed by those in JNU (77.42%) VPCI, (60%) and JMI (45.65%) and the least by IARI scientists (17.07%). However, in terms of number of other libraries used, the scientists at CRRI are obliged to use as many as 1 1 , followed by those at AIIMS (10), JMI (8), JNU (7), and only 2 by VPCI respondents. Further analysis of the other libraries has revealed that out of the 9 institutional libraries in the sample, 8 are inter-connected among themselves. Only the scientists/scholars of IARI do not depend on any one of the other 8 institutional libraries. The pattern of dependence on other libraries indicates heavy use of some libraries. The National Medical Library is being heavily used by the scientists and scholars of AIIMS and JNU. CRRI and NPL scientists use IIT library quite frequently. In fact this library is being used by the readers of as many as 7 Institutions in the sample. The IIT scientists and scholars have been found to be using the NPL library. Scientists from 5 institutions have mentioned the use of the National Science Library at INSDOC.

6. Approach to Abstracting/Indexing Periodicals

On the question of approach to abstracting/ indexing periodicals, it was found that excepting in AIIMS and CRRI there is a heavy bias towards current approach in the use of abstracting/indexing periodicals. On the average, the response comes to about 73.19% for current approach, about 49.62% for retrospective approach, 35,25% for checking bibliographic details of partially known references, and 12.26% for location of English abstracts of known papers. This tilt towards current approach could be due to the combination of indexing and abstracting periodicals in a single category and also heavy use of the *Current Contents,* which is used for current approach in almost all the institutions.

7. Abstracting/Indexing Periodicals as Effective Channel for Getting Information

It is quite obvious that in a study of this nature, one would like to find out what exactly is the relative position of abstracting/indexing periodicals as a 'channel' for locating relevant documents. It was observed that most respondents (65.35%) consider this to be the most productive channel, closely followed by two other channels, namely, 'Regular perusal of current literature' (83.73%) and 'Citations from current literature' (83.18%). The other less productive channels are: 'Personal communication/ recommendation (70.64%); Library bulletins/library staff (49.70%); and 'By chance' (40.54%). The above ranking has been compared with the findings of similar studies elsewhere and the deviations explained.

8. Use of Advances Series Publications

It was observed that scientists in all the Institutions have been using Advances Series (review publications) in their respective subjects, a list of 108 titles of such publications used by them has been prepared. Some titles are being used in number of institutions.

9. Level of Satisfaction from Abstract

It was observed that the respondents' level of satisfaction was quite high, as about 26% of them were of the opinion that they got adequate information from abstracts and about 74% felt abstracts stimulated them to go to the full text. The latter response indicates the correct function of an abstract.

10. Maintenance of Personal File and Scanning of Primary Periodicals

In the context of the present study, maintenance of personal file becomes relevant because it can be presumed that a scientist who uses abstracting/indexing periodicals regularly, especially if he has to scan them in other libraries, he would be prompted to maintain a personal file for easy and quick reference to the most relevant items of his requirement. Thus, it can be considered as an indirect measure of the use of abstracting/indexing periodicals. It was found that more than 83% of the scientists do maintain personal files. Wide variations in the size and composition of the personal files were observed. Curiously, on the average, more number of scientists maintain either a small file of 1 to 99 items or a large file of more than 400 Items. This is true for all the three categories of items, namely citations, citations with abstracts, and copies of documents.

Most scientists usually have a range of 'favourite' journals which are scanned directly.

This range is in a way an indirect indication of a scientist's or a group of scientists' general status of awareness in the subject field. It was revealed that quite a good percentage (about 43.25) of the study sample scan 1 to 5 periodicals regularly. Strangely, about 64.71% of Delhi University scientists are in this range, while only 26.67% of the VPCI scientists face in this range. A larger percentage (46.47) of the sample was found to be in the second range, i.e., scanning 6 to 10 periodicals. In the next higher range of 11 and more titles of periodicals, there were only 10.80% of the study sample, and the largest number of them was from the IIT.

11. Need for **more** Abstracting/indexing Periodicals

In response to a **question** whether there was need for additional titles of abstracting/indexing periodicals in the group of Delhi libraries, 73% felt there was no such need. Those who felt the need for acquiring more titles could mention only such titles which are available in other libraries and they had to go there to consult them. In other words they wanted these titles to be duplicated in their own libraries. As can be anticipated, the list of such titles included the costlier ones like the *Chemical Abstracts, Biological Abstracts, **Excerpta** Medica, Index Medicus,* etc.

12. Attitude Towards Sharing

Respondents were requested to express their views on a three-point scale on sharing of abstracting/indexing periodicals with nearby institutions. It was found that 22.23% of them thought that sharing will hamper their work; 12.37 thought sharing will not be convenient as most of the titles they needed were available in their own libraries; but, at the same time, 69.14% of them welcomed the idea of sharing.

13. Observation in Libraries and Librarians' Response

As has been mentioned earlier, observations were made in all the nine institutional libraries and also the National Medical Library at random intervals. The titles of abstracting/Indexing periodicals that were found to be used in these libraries were noted and lists of titles used were prepared for each library. Comparison of the titles of abstracting/indexing periodicals **preferred** by scientists, most frequently consulted as seen through observation in libraries, and considered most used by librarians, revealed a fair degree of similarity.

From the librarians' response it was found that out of 10 libraries (including the National Medical Library), 7 had to drop subscriptions to abstracting/ indexing periodicals during the last 3 years. The number of such titles varied from 1 to 8 and the total for all of them was 20. The reason for dropping in most cases was 'lack of funds'. In two cases the reason was, those titles were not much in use'.

It was also revealed through librarians' response that some libraries do use abstracting/ indexing periodicals in the compilation of bibliographies that are being produced from libraries. This is an indirect use of them so far as the end users of information are concerned.

On the question of expectations from the proposed DELNET, the librarians were not very specific. However, some expected 'support for retrospective searches, compilation of bibliographies SD1 services, efficient document delivery,' etc.

14. **Epilogue**

The pattern of inter-dependence of libraries in the matter of consultation of relevant abstracting/ indexing periodicals, it should be emphasised, has evolved largely through the initiative and efforts of individual users. There has been hardly any institutional support for such large scale inter-library use.

Further it has been revealed that in some institutions there are some minor groups who are obliged to work in subject areas which are slightly removed from the main or core areas of interest of the respective institutions. These groups are not likely to receive full information support from their own institutional libraries.

When DELNET is operational, the network authorities will have to devise methods and design services, besides other activities, through which the information needs of the above two groups could be fully met.

— B. Guha

The Problem of Document Supply : A Look at Indian Sources and NLA-ASTINFO Facility

A. Lahiri
National Information System for
Science & Technology (DSIR), New Delhi

If you are looking for a document, the chances of your finding it easily and speedily may not be very bright. There Is the question of locating the right source to order copies, the lead time which could be as long as 12 weeks or more, the cost involved, the means of payment, etc., etc.

The author examines these questions In some detail. He considers the effectiveness of Indian sources and looks at the status of NLA-ASTINFO Facility while making some helpful comments and suggestions. —*Ed.*

In India, if a user fails to get a document from his parent library of libraries within the locality, he usually places an order with INSDOC, or NISSAT Sectoral Centres.

The NISSAT Centres which are subject-oriented (like food, drugs, leather, machine tools, textiles, chemicals, advanced ceramics etc.), prefer to confine their services to their own specialized collection only.

INSDOC services cover all branches of science & technology, but they do not have a good coverage of the core journals. It draws support from large resource institutions like National Medical Library and Indian Agricultural Research Institute in Delhi and its regional centres in Calcutta, Madras and Bangalore. Dependence on residual resources means high rate of dissatisfaction. Further, dependence on external resources means extension of lead time of supply. The problem was discussed with BLDSC experts several times. Their suggestion for development of core collection could not, however, be implemented for want of finance.

The extent of demand for document supply on INSDOC may be inferred from Table 1.

Table 1 Demand on INSDOC for Document Supply

Year	Orders registered ('000}	Orders supplied ('000)
1982-83	24	23
1983-84	24	24
1984-85	25	24
1985-86	18	16
1986-87	16	13
1987-88	13	12
1988-89	N.A	N.A
1989-90	8	7

(Source : Annual **Reports** of INSDOC)

An analysis of orders executed by subject, client, procurement source and lead time of supply is given in *Annexure-I.*

Better inter-library cooperation at local level and libraries' own initiatives in procurement of documents using the union catalogue would partly explain the decline in orders received by INSDOC. Further, besides INSDOC, several organisations like the NISSAT centres and National Centre for Science Information now offer the service.

Location Tools

INSDOC has been responsible for preparation of the union catalogue so far as scientific serials are concerned. NISSAT had provided the required support for expediting the compilation. The activity has been going on since 1970s and several

revisions and sub-sets on geographic basis have been brought out. The last edition covers:

Libraries	:	800
Total titles	:	35,000
Current titles	:	18,000

With NISSAT support once again, INSDOC is making efforts:

— to keep the databases updated;

— to convert them (or on-line search;

— to bring out subsets on geographic basis and on narrow subjects.

The National Social Science Documentation Centre intends to cover the social science periodicals through a regionwise approach. The Delhi catalogue which has already been published covers:

Libraries	:	68
Titles	:	7,000

The other large catalogue is the (unpublished) catalogue prepared by the Defence Scientific Information and Documentation Centre (DESIDOC) for the forty and odd defence laboratories.

The National Informatics Centre (NIC) is now preparing an all-India sub-set on medical and bio-medical journals. Another significant exercise is under progress on aerospace journals.

Besides the three major efforts indicated above, several subject-wise approaches have been made. For example, the Medical Library Association of India, (Western Region) compiled a catalogue for medical periodicals in the western region. The Indian Scientific Translators Association prepared an all-India compilation on cover-to-cover translated periodicals. Similarly, the Jawaharlal Nehru University is preparing an all-India catalogue of secondary periodicals. All these projects were supported by NISSAT.

As an integral part of activities of the Consultative Committees for Rationalisation of Periodicals (CCRP) in the 16 cities, namely, Delhi, Calcutta, Madras, Bombay, Hyderabad, Bangalore, Pune, Ahmedabad, Chandigarh, Kanpur, Cochin, Mysore, Bhopal, Lucknow, Trivandrum and Visakhapatnam, city-based union catalogues are being prepared for current periodicals (only) to aid resource sharing and rationalization of acquisitions on a collective basis. Since the CCRP is a continuing activity, it is expected that these catalogues would be updated annually.

Means of **Payment**

Usually, the orders are to be placed on an order form. However, the format varies with institutions and there is no common order form.

The mechanism and means of payment also vary with institutions. By and large, the rates are based on number of pages of photocopies subject to a minimum charge. Recently, INSDOC has also introduced handling charges in addition to photocopying charges.

Institutions which are regularly in the business of document supplies like the NISSAT Centres and INSDOC, also maintain deposit accounts to which required charges are debited.

Some of the NISSAT Centres have started taking 'Membership Fee'. A membership allows, besides other services, availing of certain amount of document supply services. Some Centres maintain the accounts themselves. Others issue coupons which could be used as tenders.

NLA-ASTINFO Facility

Since the NLA-ASTINFO project has limited amount of resources to provide subsidies, it has been decided to make only a selective use of the facility. Therefore, the responsibilities were distributed to a few institutions which had the required infrastructure to properly evaluate an order for a document regarding its availability from within India. Besides, there were logistic considerations. The current list of institutions handling the NLA-ASTINFO requests may be seen at *Annexure-2*.

The ASTINFO Coordinating Unit-NISSAT had acquired 'Request Forms' in bulk from NLA against UNESCO coupons and distributed the same among the nodal institutions. So far, the arrangement had worked well except that the nodal institutions were reluctant to pay US $2 in place of A $ 2 for a request form. -\ g

The activity, for unavoidable reasons, started in early 1991. A quick survey was made to ascertain the use of the facility. While everybody acknowledged that the cost of the services was

low by any international standards, there were a few difficulties in making use of the facility.

Though the experience is only limited, the problem of uncertainty of success appears to be genuine. The NLA has provided copies of the catalogue on microfische to all the nodal agencies; unfortunately, several of them do not have appropriate readers. In any case, both microfische and its paper copies are too cumbersome to handle. The ACU has now taken up a project to analyse the catalogue and Identify specific opportunities the facility holds for India. It is suggested that all participating countries of AST1NFO should undertake similar studies.

In response to the survey conducted, one of the nodal agencies provided the following comparative analysis:

Period **: Nov. 1990 to July** 1991
Total **No.** of **requests: 54**

Source	ASTINFO	BLOSCCAS		NIST
No. of papers requested	6	30	8	10
No. of papers received	5	29	7	10
Failures	1	1	1	—
Average time for supply (in days)	35	37	38	32
Average cost per paper (in Rs.)	36.40	150.00	300.00	Gratis

It may be observed that while the lead time for document supply by NLA-ASTINFO is comparable to other reputed sources and the cost is by far the lowest, the coverage of the NLA collection may not be as good. The lie of NLA with CSIRO would help Increase the coverage of science and technology materials. If it were not so, then the whole load of orders that are presently sent to institutions like the BLDSC now, would have got diverted to the NLA-ASTINFO. Two other comments made by the nodal institutions are :

— Rupee devaluation has been a big blow to libraries. They would have to provide for 50% more in the budget (20% devaluation + 20% escalation + 10% new journals). In such a difficult situation the NLA-ASTINFO facility would certainly be a boon.

— Many a time, orders are placed with the BLDSC or NLA although the journal might be very much available in a number of libraries in India. This is because it may be faster, more convenient or even cheaper at times, to get the documents from outside than from within India.

In the context of the above scenario, the following issues deserve attention:

— Facility to ensure availability of documents in the NLA collection before placement of orders;

— Measures to enhance the coverage of information materials of the ASTINFO project;

— Measures for promotion of the facility within the country.

Location of Documents

As mentioned earlier, the microfische catalogue and its paper copy are cumbersome to handle. In the 1991 deliberations held in Metro Manila, it was recommended that the catalogue should be computerized using CDS/ISIS. It is desirable that this recommendation be pursued urgently.

Coverage of Information Materials

The NLA has about 100 thousand titles from science, social science, humanities all put together. The BLDSC experience suggests that periodicals which are highly In demand and more often subscribed to, also attract heavy demand tor document supply.

Therefore, the list of journals available with the NLA should be analysed and coverage of core journals determined.

The core resources should have about 10,000 current S & T journals (based on BLDSC's or similar rank lists) in heaviest demand with Immediate back run of about 5 years. This should raise the rate of satisfaction to about 80%.

The gap between the desirable 10,000 current core journals and those subscribed by the NLA would have to be appropriately bridged- Cooperation from other national document supply facilities of ASTINFO countries may be sought for selective coverage of the core.

Similarly, the cooperation of ASTINFO

countries may be sought lor document supply to the global community of users so far as literature produced in the respective countries is concerned. Such global service could potentially earn revenue to supplement UNESCO's meagre subsidy kitty.

Promotion

In India, the facility has not been publicized to the extent necessary. This may be one of the reasons why the utilisation of NLA-ASTINFO services did not pick up. So far, only the NISSAT Newsletter was used, that too in the Notes and News column. It is proposed to step up the promotional efforts also in advertisement form through Newsletters brought out by NISSAT and other information programmes and through publications of professional bodies.

Conclusion

The NLA-ASTINFO document supply facility is attractive for developing countries like India, and therefore, should be continued. India has taken longer lead time to get organized; now several resource institutions, geographically well-spread, have been given the responsibilities to handle the facility.

The performance at the NLA-end has been good. From the users-end, the following recommendations 'are made:

- All participating countries should analyse the NLA catalogue *vis-a-vis* their own and identify ways and means of maximizing the benefits from the facility;
- NLA should analyse its own catalogue *vis-a-vis* rank list of journals available, and find the gaps in the coverage of core collection. The gaps could be suitably bridged through cooperation of ASTINFO member countries;
- ASTINFO should computerize the NLA catalogue using CDS/ISIS to facilitate faster cross-checking of orders at hand;
- A small brochure may be prepared to help promote the facility in participating countries;
- The market potential of the NLA facility together with supporting potential of the member countries may be properly assessed so that revenue could be generated to offset at least a part of the subsidy component during and after the current project.

Annexure-I Analysis of Orders Executed **by INSDOC** During **1989-90.**

Total orders registered	8078
Orders cancelled	1000 "
Orders executed	7556

By Subject

Agric & Biol. Sciences	Medical Sciences	Engineering Sciences	Physical Sciences
2437	2056	1505	1558
32.25%	27.22%	19.92%	20.62%

By Client

Univ.	R & D Labs.	Indust	Individual	Govt Deptt.	Foreign Centres
2526	1810	1200	1000	560	460
33.43%	23.95%	15.88%	13.24%	7.41 %	6.09%

(Contd.)

Procurement Source	NSL	Delhi Libraries*	Other Libs (in India)	Foreign Centres
	1134	4729	770	923
	15.01%	62.59%	10.19%	12.21%

Time Taken

	< 8 Weeks	< 12 Weeks	> 12 Weeks	Total
Delhi Libraries	2932	2200	731	5863
Other Indian Libraries	385	212	173	770
Foreign Channels	462	300	161	923
Percentage	50.01	35.90	14.09	100

' *Other than NSL*
" Includes orders from the previous years

Source: Annual Report **INSDOC** 1989-90.

Annexure-2 Nodal Institutions Handling NLA-ASTINFO Facility

Region/City	Nodal Institution
A. NORTH :	
New Delhi	**Indian National Scientific Documentation Centre**
	Defence Scientific **Information and** Documentation **Centre**
	Indian Agricultural **Research Institute**
	National Social Science Documentation Centre
Lucknow	Central Drug Research Institute
B. SOUTH :	
Madras	Indian Institute of Technology
Bangalore	Central Machine Tools Institute
Hyderabad	Indian Institute of Chemical Technology
C. EAST:	
Calcutta	Indian Association for Cultivation of Science
Shillong	North Eastern Hill University
D. WEST:	
Ahmedabad	Ahmedabad Textile Industry's Research Association
Pune	National Chemical Laboratory

Note : Apart **from the institutions** listed **above,** the National Centre for Science **Information has procured** NLA-ASTINFO forms directly.

NISSAT-INSDOC Courses on Computer Application to Library and Information Activities 1992-93

1. Computer Application to Library and Information Activities (for freshers)

Course ***Content***

The course comprises MSDOS, CDS/ISIS, dBASE, Wordstar, Lotus 1-2-3 and theory classes on Microcomputer **hardware,** files and **database organisation, computerised** information **retrieval, common** communication format, etc.

Duration : 13 April 1992 to 15 May 1992 (5 weeks)
Seats : 15

2. Computer Application to Library & information Activities (for freshers).

Course Content : As in Sr. No. 1.

Duration : 25 May 1992 to 26 June 1992 (5 weeks)
Seats : 15

3. DBMS **and dBASE**

Course Content

The course consists **of both theory and practical classes and covers the following: Basics** of database **management systems,** with examples **of relational database management** systems, **dBASE** ill Plus and **their** library **applications** in acquisition, **processing, circulation control and** salient **features of dBASE** IV.

Duration : 13 July 1992 to 7 August 1992 (4 weeks)
Seats : 15

4. Bibllometrlcs

Course Content

Bibliometrics: **definition, scope, limitations; Mathematical bibliometrics; Bibliometric laws; Bibliometric tools; Application of** bibliometric **methods for generating various indicators** including science indicators; Indian **contributions in bibliometrics; Computerised searching of Science Citation Index in** CD-ROM.

The last two days of the course will be **devoted to presentation of papers by the participants** and discussion of the bibliometric **problems on which the participants are working.**

Duration : 12 October 1992 to 23 October 1992 (2 weeks)
Seals : 15

5. Computer Application to Library & Information Activities (for freshers).

Course ***Content :*** **As in Sr. No. 1.**

Duration : **2 November 1992** to **4** December **1992** (5 weeks)
Seats : 15

6. CDS/ISIS (Ver. 2.32) with PASCAL Interface (for **those** having **working knowledge in CDS/ISIS).** **23**

Course Content

The course comprises all the **facets of CDS/ISIS (Ver.** 2.32), **programming through PASCAL** and **its** application **in the CDS/ISIS (Ver. 2.32) environment. Emphasis is on the creation of databases relating to**

various library & information activities and generation of computerised products like accession list, author index, subject index, library catalogue, directories of various kinds and so on.

Duration : 4 January 1993 to 29 January 1993 (4 weeks)
Seats : 15

7. Computer Application to Library & Information Activities (for freshers).

Course Contents: As in Sr No. 1.

Duration : 8 February 1993 to 12 March 1993 (5 weeks)
Seats : 15

8. Recent Developments In Information Science & Technology (Refresher course for working librarians).

Course Content

indexing, abstracting and thesaurus construction. Technical writing, Bibliographic formats, ISO 2709, CCF & UNIMARC.
Bibliometrics & Informetrics
Computer Application to Library & Information Activities
Computer communication networks
Computerised databases and on-line searching
CD-ROM databases and on-line searching
Electronic Mail
Desktop Publishing
Reprographics
Teletex, Videotex, etc.

The course comprises lectures and demonstrations.
Duration : 22 March 1993 to 2 April 1993 {2 weeks)
Seats : 15

- Seats will be filled up on first-come first-served basis.
- *Course Fees:*

5 week course	~~Rs. 3500V-	{with accommodation)
	Rs- 280QV-	(without accommodation)
	US$ 1600/-	(with accommodation) (for foreigners)
4 week course	Rs. 2750/-	(with accommodation)
	Rs. 2250/-	(without accommodation)
	US$ 1250/-	(with accommodation) (for foreigners)
2 week course	Rs. 1500/-	(with accommodation)
	Rs. 1200/-	(without accommodation)
	US$ 650/-	(without accommodation) (for foreigners)

Course fees are to be sent in advance in the form of cheque or demand draft payable to Director, INSDOC, New Delhi.

Eligibility: The courses are exclusively meant for library and information professionals. Persons working in libraries/information centres, and having library science/computer science qualifications are eligible to apply. Fresh candidates having post-graduate degree in library and/or information science are also eligible to apply.

How to Apply: Applications are to be made in prescribed form available on request.

Contact: Shri B K Sen, Deputy Head, Education & Training Division, INSDOC, 14 Satsang Vihar Marg, New Delhi-110 067.

News and Events

Prof. T. Viswanathan addressing AGLIS Convention & Seminar on Marketing of Information Product*. Seated at left is AGUS President V.K. Rangra

Marketing of Information Services and Products—AGLIS Convention and Seminar

The theme is not new but a discussion on the topic is more relevant in the perspective of new industrial and economic policy, observed Prof. T. Viswanathan while delivering the inaugural address at AGLIS Convention and Seminar on Marketing of Information Products held at New Delhi on 24 Dec. 1991.

While In some parts of the world there was a flood of information, others were drought stricken, continued Prof. Viswanathan. Out of about 60,000 S 4 T periodicals published in the world today India had access to 20,000 only. This situation will have to be balanced. Access to information in remote places was passible on a cost-effective basis with the help of modern information dissemination and communication techniques. But work had to go on for repackaging information to give specific information to the needy; mere subject classification was no longer relevant, Prof Viswanathan observed. Inter-library cooperation formed the backbone of efficient information service through the use of IT.

Earlier AGLIS President Shri V.K. Rangra while welcoming the participants explained the theme of the Seminar and referred to some other issues which are of deep concern to the library profession such as anomalies in the new pay structure of government librarians, post devaluation conversion rates and increase in the mark-up from 5 to 9% announced by the Good Offices Committee for Procurement of books through booksellers effective 16 Sept. 1991.

The Technical Session at which about a dozen papers were presented was chaired by Prof. P.B. Mangla of the University of Delhi.

It was resolved that the working librarians as well as the users should be exposed to the concept of marketing and the topic may be included in the curriculum of study for MLIS Case studies on the utility of marketing as a technique in libraries and information centres should also be carried out.

Shri Ambrish Kumar. Secretary, AGLIS proposed a **vote** of thanks at the conclusion of the Seminar.

IFLA General Conference, New Delhi

The 58th Annual Conference of the International Federation of Library Associations and Institutions (IFLA} **will** be held in New Delhi during 30 Aug. - 5 Sept. 1992. About 3000 delegates are expected to attend (2000 from overseas).

'Library and Information Policy and Perspective' is the main theme of the Conference Subtopics include conceptual framework for national library and information policies, Role of public, academic and special libraries in providing information needs, and users and their needs.

The Indian Library Association (ILA), the host organization has constituted a 20-member Indian Organizing Committee.

The Registration fee is Rs 3000 per delegate payable by demand draft to Indian Organizing Committee—IFLA 1992 C/o INSOOC, 14 Satsang Vihar Marg, New Delhi-110 067.

Strategic Information Planning : ICPE Workshop

The International Centre for Public Enterprises in Developing Countries, Ljubljana Slovenia (Yugoslavia) is holding a workshop and seminar during 14-17 April 1992 on Strategic Information Planning. The workshop is being organized with the active participation of ICPE, the College of Information Studies of Orexel University, Philadelphia and FID.

The primary objective is to transmit extensive practical experiences of some of the world's leading international experts in the field of information policy.

The participation fee is USD 350 to be remitted to ICPE, PO BOX 92, 61000 Ljubljana. Yugoslavia.

Public Library System at Cross-Roads : A.P. Library Conference

The Andhra Pradesh Library Association organized a two-day Conference (11-12 Jan. '92) in Vijayawada. Attended by about 80 delegates from A.P. and neighbouring States, the Conference was inaugurated by Dr P.V. Ranga Rao.

The major themes discussed were library movement, role ot public libraries in non-formal education and adult literacy, possible methods of increasing readership bibliographic control of Telegu publications and library as a source for development of information technology and its introduction to modernise the public library system.

Shti Kodati Narayana Rao, the Chief Guest stressed the need for active participation of professionals in the library movement. Smt P.P. Nightingale, Director ol Public Libraries, A.P. released the Conference Volume on the occasion.

Marine Sciences Information Exchange

'Modern Trends in Marine Science Bibliographic Information Handling' is the theme of a Seminar being organized by National Institute of Oceanography, Goa on 28 Feb. 1992. The objective was to optimise the use of modern tools and techniques and develop a network of marine science institutions in India for effective speedy information exchange.

INFOTECH-ASIA '93

The Society for Information Science is planning an International Conference and exhibition on Database Production and Distribution: Resources, Technology and Management. The Conference is to be held as part of the 12th annual Convention of the Society some time in February 1993 under the banner INFOTECH-Asia '93.

The event is proposed to be held in Bangalore and will have as Co-sponsors the National Information Centre, New Delhi and Informatics (India) Pvt. Ltd Bangalore. Its objectives are:

- To establish an Asian Conference Forum of international reach to focus on information industry in the Asian region.
- To create awareness about growing opportunities in the areas of information handling in the region.
- To create opportunity for exchange of ideas and technologies
- To promote joint venture opportunities among Asian and international organizations.
- To organise exhibits of international standard and quality as an integral part of the conference and to focus on the state-of-the-art technology in the (iold.

Further details would be announced shortly.

NCSI New*

The National Centre for Science Information (NCSI) at the Indian Institute of Science, Bangalore announces the availability of the following services.

1. CD-ROM Database Service: Engineering — Makes available abstracts of research publications for specific research topics in engineering. The service is derived from, COMPENDEX, the electronic version of the Engineering Index abstracting journal. NCSI has COMPENDEX databases from 1986 to date.

The minimum handling charge is Rs. 100 per search lor first 50 abstracts and Rs 2 per abstract subsequently. Delivery time 3-4 days (local), one-two weeks tor outstations. Search results can also be given on floppy diskettes supplied by the user.

2. Retrospective Search Service — NCSI is new ONLINE with more than 300 international databases from Aeronautics to Zoology-residing in a database host computer system in USA. It can now meet retrospective literature search requirements from any of these databases. Being a supplementary service to the Centres's Current Awareness Service, the Online facility has been set up by connecting a computer in NCSI with the computer system in USA through telecommunication networks.

The 300 odd databases provide comprehensive coverage on science, business, technology, chemistry, medicine, engineering, current events and more. These databases, updated regularly, contain more than 175 million items of information — ranging from references to literature (papers in journals, conferences, patents, etc.), to the complete text of a journal article: to a directory-type listing of companies, associations or famous people; to an in-depth financial statement for a particular company, etc. To name just a few of the important databases: *Chemical Abstracts* (Chemical Science and Technology, PREDICASTS PROMPT (products, markets, technology review and forecasting), *Compendex* (Engineering Information}, COMPUTER *Databases* (Computer Industry), Textile Technology Digest, Metadex (Material and Metals), Plaspec (Plastic). *Medline* (Medical Science), *International Pharmaceutical Abstracts, Food Science and Technology Abstracts, World Patent Abstracts,* and many more.... Delivery time 15-20 days.

For further details write to Prof. V. Rajaramart, Chairman, NCSI. Indian Institute of Science, Bangalore, 560 012.

3. Current Awareness Service in Science (CAS) — Subscribers to ttiis service will regularly receive references and abstracts of published literature in their field of interest during the subscription period. Annual subscription charge is payable in advance by DD to Registrar, Indian Institute of Science, Bangalore 560 012, Payments should accompany the User Profile Information Sheet.

4. Document Delivery Service (DDS) — The service is limited to only those articles cited in the CAS printouts sent to users from NCSI cost Rs 0.75 per page photocopied, if the journal is not available in HSc Library, the photocopy will be acquired from NLA at the specific request of the user. A photocopy for one article obtained from NLA will cost Rs. 50.

Dialog News

During the year 1991, DIALOG added over 30 new databases with several more full-text sources to its online list and released 10 new databases on CD-ROM. Today DIALOG not only hosts the largest number of databases but also offers the largest number of full-text sources (more than 1400). More and more Asian sources are now being added. Kompass Asia Pacific, released this year covers 18,707 Indian companies. A Predleasts database on DIALOG has over 20,000 records on Indian business and industry. Almost every major Indian journal is covered in one or other DIALOG database.

A new search facility added this year enables simultaneous scanning of ail the 425 plus databases on any topic in DIALINDEX (SF ALL). DIALOG Journal Name Finder database won database magazine's "product of the year" award. It is a very unique database which serves as a common index file to all the journals covered in all the DIALOG databases. Followed by its success and wide appreciation, DIALOG introduced two more databases in this category—DIALOG Company Name Finder and DIALOG Product Name Finder.

The year saw devaluation of rupee, making everything including information expensive. In this context, mention must be made of a very low cost option which DIALOG offers. It is an independent interface called Knowledge Index which offers low cost access to nearly 100 most popular DIALOG databases at a reduced cost of more than 60% compared to its main interface. The databases in this category include popular ones like Irispec, Magazine Index, etc. Knowledge Index is very popular among students and academic users in the U.S. offered after 6 p.m. (local time). Knowledge Index can be searched during day time also from India on Saturdays.

DIALOG is going strong with CD-ROMs loo, and now offers over 40 databases which include popular ones like NTIS, MEDLINE and COMPENDEX and many fult text files like KIRK & OTHMER Encyclopaedia on chemical industry. More are on the anvil.

SDI Autosystem

This is a menu driven Micro CDS/ISIS pascal program that works on two Micro CDS/ISIS databases one of which contains SDI profiles while the other contains bibliographic data with keywords- that are used to construct the profiles in the first database.

During its operation the system picks a profile from the SDI database starting at a user specified master file number. The profile is then searched in the bibliographic database . and the corresponding hit records are saved and printed with a format that includes the current SDI users name, the profile and the date-of search. The printout covers a record range that is user specified.

At the end of the print run the next occurrence in the profile field of the SDI users database is picked and the process repeats itself. If there are not mom occurrences the next record in the user specified range is accessed. All this happens automatically until the record range is exhausted.

Besides the above, the SDI autosystem can print mailing labels from any Micro CDS/ISIS database that contains addresses.

The system has been developed by S.G. Systems International, Nairobi (Kenya).

YS Parmar UHF Library: Services Offered

The YS Parmar University of Horticulture and Forestry, Solan offers comprehensive S 4 T information retrieval facility through CD-ROM technology. It launched the CAB Abstracts database in late 1989. The library has presently two dises: (a) CAB 1984-96 and (b) AGRICOLA 1984-90 (database of National Agriculture Library, USA). To maintain update information, the UHF is also subscribing to Current Contents on Diskettes with ABSTRACTS (Agriculture, Biotogy and Environmental Sciences} since April 1990. This enables scientists to search and browse the latest bibliographic data from more than 1000 leading journals.

In addition, the library has in-house databases on horticulture, agriculture and forestry research information: database on MSc and Ph D theses: Forestry, Periodicals holdings, Books, Temperate fruits and Floriculture.

The library also offers services to scientists and students interested in agriculture, horticulture and forestry information from all over India.

Smart Library System (SLS)

Developed by S.G. Systems International Nairobi (Kenya), the Smart Library System (SLS) is stated to be an integrated software package for use in a library or information unit.

The system features a user-friendly user interface that consists of context-sensitive help information, status lines, message tines, pulldown and pop-up menus and dearly labelled data display windows.

Printer output can be selected from a wide range of printers and is formatted.

The system uses fast access databases for real-time data manipulations.

SLS can be used by any library or information unit in which the following (unctions exist: circulation, acquisitions, serials management and document access catalogues.

It is particularly suited to users of Micro CDS/ISIS as it comes with Micro CDS/ISIS pascal programs for off-loading data from an ISIS bibliographic database to SLS's documents database for circulation control.

Workshop on Computer Networking

A workshop on Computer Networking was organized during 17-18 February 1992 by INFLIBNET at New Delhi. It was attended by staff of universities and colleges. The objectives were:

— to offer information and knowledge relevant to setting up and operating an electronic mail node

— to make participants knowledgeable about standard tetecom facilities and datacom equipment such as modems and PADs.

— to provide an introduction to computer networks, largely in the context of academic networks.

Library Legislation In Punjab

The Punjab Library Association organised a Seminar on 'Public Library System in Punjab" which was held from Nov. **22-23,** 1991 at the Senate Hall of Punjabi University, Patiala. Or H.K. Manmohan Singh, Vice-Chancellor, Punjabi University, Patiala delivering the inaugural address stressed the need for legislation on Public Library System in the State in consultation with library experts. He said the time had come to put pressure on the government and society to put the library system on progressive lines. Dr Singh stressed the need of inculcating the habit of reading.

Dr Ujagar Singh Banga, DPI (Colleges) Punjab, presided over the inaugural function. Or Banga said that the State Government was contemplating legislation on public library system and had instructed (he College Directorate to prepare a draft after studying the Haryana Public Libraries Act.

Dr N.K. Sharma, President, Haryana Library Association in his keynote address said that the public library system required the enactment ol library legislation for legal base, including proper functioning of Die constituents of the public library system.

Dr Janak Raj, Director of the seminar lamented that when the world after Agricultural Age and Industrial Age was entering the Information Age, the State of Punjab with (he highest per capita income in India does not have a proper network of even traditional type of public libraries. He stressed the need of enactment of library legislation.

The Two-day Seminar was attended by about 100 delegates who came from all over the State of Punjab, In all 17 papers were presented in 4 technical sessions.

NICFOS Launches Current Content Service

The National Information Centre for Food Science and Technology (NICFOS) at CFTRI, Mysore has launched the 'Current Content Service' to enable users to have access to contents pages of journals not received in (heir libraries but are available with NICFOS. Requests for original articles from the contents pages will also be attended to.

The service is intended to keep users abreast ol the latest developments in specific areas of their interest The charge is Rs 2 per page pius forwarding charges. For further information contact Area Coordinator, Library, NICFOS, CFTRI, Mysore 570 013.

Directory of Computer Software for Chemistry and Chemical Engineering 1991

The Directory gives information on more than 400 software/programs with abstracts and with the name of authors who have developed or the vendors from whom the software packages can be obtained. The directory provides keyword index for easy location of information.

The publication should be found useful by R & D institutions, industries, universities, chemical engineering professionals and students and faculty of academic institutions in the field of chemical engineering.

The cost of the publication is as follows: Rs. 500/- {Hard copy); Rs. 750/- (Diskette version)

Interested organisations/persons are requested to send DD/Cheque in favour of the Director, Central Electrochemical Research Institute, Karaikudi 623 006.

Viruses — A Remedy at Last?

Experts have identified around 500 computer viruses-codes that can cause PCs to go haywire, with self-evidently dreadful consequences. Programs exist to immunize PCs against known viruses—but new ones are appearing every week, against which microcomputer users are totally unprotected.

Now a Califomian company has produced a package which, it claims, can help. XTree's ViruSafe has a database of all known viruses. From that, the program can eliminate recognized viruses residing in a computer's memory or hard disk and spot suspicious—looking codes that could be a new virus.

To determine whether a code is, in fact, a vims, ViruSafe creates a temporary file and monitors what the code does to it. If it proves harmful to the test file, ViruSafe adds the new virus to its database and removes it from the PC.

ViruSafe, itself, is intended to be immune: it is composed of six overlapping modules, so if (he program becomes infected the damaged portion is deleted and rebuilt from the unaffected file automatically. —*Business Weak,* August 26, 1991.

Object-oriented Programming

Object-oriented programming is an emerging software technique that could meet the computer industry's most daunting challenge: to make software easier to create, simpler to use, and far more reliable. Some pundits predict that object-oriented programming could Ob for software what the microchip did for hardware.

While computer hardware has made giant leaps forward recently, a yawning gap has appeared in software development, which gets wider by the year. Programming remains a painstaking, often painfully slow task, ridded with opportunities for error.

The 'objects' towards which the new buzzword in software is oriented are chunks *of* programming or data that can act like things in the real world. To take an example from one well-known microcomputer system, you can use electronic objects called file folders and file cabinets to organize pages of information—the way you would in the physical world.

Objects can be applied to many kinds of programs. An object can be a business form, an insurance policy, or the axle of a car. The axle "object" would incorporate data describing its physical dimensions, and programming that describes how it interacts with other parts, such as wheels and struts.

A system for a human resources department would have objects called employees, which would have data about each worker and the programming needed to calculate pay rises, sign up dependents for benefits, and make payroll deductions. Because objects have "intelligence"-they know what they are and what they can and can't do—objects can automatically carry out tasks such as calling into another computer, perhaps to update a file when an employee is promoted.

The biggest advantage is thai objects can be reused in a number of programs. The object in an electronic mail program that places messages in alphabetical order can also be used to alphabetize invoices. Thus, programs can be built from prefabricated, pretested building blacks in a fraction of the time it would take to build them from scratch. Programs can be updated by simply adding new objects.

A Key breakthrough is the ability to build large programs from lots of small, prefabricated ones. That is possible because objects completely change the traditional relationship between programs and data, which have been strictly segregated for 40 years. An object encapsulates programs and data in a self-contained unit, which fully describes some real-world entity.

For the ordinary user, the object-oriented software now tumbling off the assembly lines of major manufacturers should make so-called user-friendly micros much easier to get to grips with. One of the goals of Hie earliest researchers into object-oriented programming, back in the 70s, was to design a system so simple a child could use it. 20 years later, the technology promises to make computers easy enough for even adults to use. — *Business Week,* September 1991.

Thesaurus Construction System

A Thesaurus Construction System, offering specialist software for information professionals, is available from a Californian company. TCS Professional can be used to build thesauri, controlled vocabularies, data dictionaries, or any hierarchical lists. It offers polyhierarchy support, unlimited number of hierarchies, unlimited number of references, long-text scope notes, user defined notes, and block transfers of terms. It is also capable of sending direct alphabetical, hierarchical, rotated term, and proof reports to file or printer.

TCS Professional offers pull-down menus and a colour display, as well as other features designed for user-friendliness. It is PC compatible, and costs USD450.

New Paper Keeps Secrets

For three decades, newsletter publishers and government censors have shared a common obsession; thwarting illicit photocopying of their pricey or secret information. Using blue paper was the first solution, and many other ink and paper colours have been tried-only to fall prey to newer copiers.

Now a Japanese company, Kiso Chemical Corp., believes it has found an answer: a "secrets pacer", dubbed KSP, that is protected by a very thin film of evaporated aluminium. The metal coating deflects and scatters a copier's light so thai the machine can't distinguish between type and background. Feed the bronze-coloured sheets into a copier, and out come all-black copies.

The main drawback is cost: KSP's introductory price is around USD1 per sheet, a great deal more than conventional copy paper, though that should drop as production volume rises. The manufacturers expect to sell USD2 million worth in the first year and see demand tripling by 1995. — *Business Week,* September 1991.

IDIS Interface Operational

Since July 1991, UNESCO has been operating IDIS, a bi-directional interface between two of its database management programs, Micro-CDS/ISIS, a bibliographic database management package, arid IDAMS, which deals with numerical data-

IDIS performs data description and data transfer between Micro-COS/ISIS and IDAMS-PC in both directions. It provides the opportunity to handle all types of textual and numerical information, gathered for administrative as well as scientific purposes, in a unified way.

Written in CDS/ISIS Pascal, IDIS is integrated in Micro-CDS/ISIS with two options added to the main menu: database export to IDAMS, and dataset import from IDAMS. The mutual transfer is controlled by the data description files of the respective packages.

IDIS was developed for Unesco by Dr Peter Hunya, Scientific Adviser, TUDORG Informatics and Organization, Budapest, Hungary.

INS Database Released on CO-ROM

The INIS database is now available on CD-ROM. Produced by the International Atomic Energy Agency (IAEA), in collaboration with participating countries and other international organizations INIS covers the peaceful uses of nuclear science and technology.

INIS provides extensive coverage of all aspects of nuclear science and its peaceful applications, with emphasis on physics, chemistry, earth sciences, life sciences, isotopes and radio applications, and engineering.

Information contained in the INIS database comes from such sources as: journal articles, research reports, monographs, proceedings, theses, conference papers, and patents. Coverage dates back to 1976 with approximately 1.2 million records, the majority of which have lengthy and detailed abstracts. INIS is an English-language database, but some titles, abstracts and source material appear in their original languages.

The complete database will be published on four discs and updated quarterly. — *The Silv&r Platter Exchange,* May 1991.

TNCs Bibliography Published

The UN Centre on Transnational Corporations (UNCTC) has published the bilingual (English-French) Transnational Corporations; a selective bibliography 1988-1990. UNCTC's work is aimed at the following objectives; to further ihe understanding of the nature of TNCs; to secure effective international agreements; and to strengthen the negotiating capacity of host countries in dealing with TNCs.

Main topics covered in the bibliography are: foreign direct investments; TNCs, their managemeni and their impact on home and host countries; the economic, political, and social Issues that affect and are affected by TNCs; *the* international and national legal and policy framework against which TNCs operate; and the contractual arrangements that link TNCs and host governments. Works selected for inclusion treat issues in an international context. For example, works dealing with the banking system of just one country without reference to transnational activities were excluded.

This bibliography covers books and articles published from 1988 to 1990; it follows an earlier compilation published in 1988 that comprised works published from 1983 to 1987. **Some** citations reflect the literature in the Centre's Documentation Unit; others were laken from the UN Bibliographic Information System (UNBIS) database, and from major international indexes and catalogues. It represents a broad spectrum of world literature on the subject of TNCs; special efforts were made to cover works in many languages and from many parts of the world.

Transnational corporations: a selective bibliography 1988-1990 carries ISBN 92-1-004032-5 and is available from UN Sates Offices.

Cybernetics and Systems: Ninth International Congress

The World Organization of Systems and Cybernetics will hold its Ninth International Congress in New Delhi during 18-23 January 1993. The conference will be a joint venlure of the Society for Management Science and Applied Cybernetics, New Delhi and Systems Engineering and Cybernetics Centre. Tata Consultancy Services, Hyderabad.

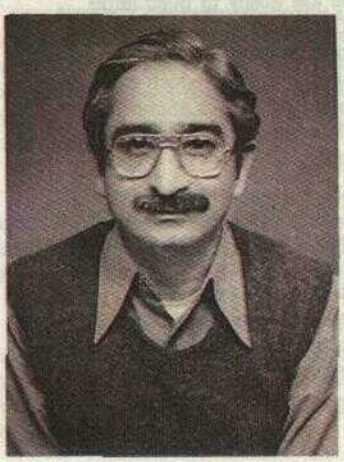
Topics will be covered in the following clusters each of which may have multiple sessions:

1. Methodological Problems in Systems and Cybernetics, 2. Systems Engineering; 3 Cybernetics and Systems in Emerging Problems of Development, 4. Problems of Third World Countries; 5 Robotics and Automation; 6. Systems Practice; 7. Artificial Intelligence and Applications; B. Medical and Bio-Cybernetics; 9. Computer Communications.

Deadline for Submission of papers is June 30, 1992. Inquiries may be addressed to Dr A. Ghoshal, Secretary, Society of Management Science and Applied Cybernetics C/o CSIF1 Complex, Pusa, New Delhi 1 1 0 012.

1FLA Gold Medal for Prof. Mangle

At the 57th IFLA Conference held at Moscow recently. Prof P.B. Mangla of Delhi University was awarded the prestigious IFLA Gold Medal and a Citation which says the award is given for Prof Mangla's 'innovative and outstanding contribution to the furtherance of national and international librarianship' during his term of service on IFLA's Executive Board (1985-91) and as its Vice-President 1987-91 We congratulate Prof. Mangla for the distinction conferred on him.



Kallnga Award Recipient Dr Narendra K. Sehgal

Kallnga Prize for Dr N.K. Bengal

Dr Narendra K. Sehgal, Director NCSTC (DST) has been awarded the Kalinga Prize of UNESCO for Science Popularisation (along with a Rumanian, Dr R. Iftimovici).

Dr Sehgal has to his credit a number of popular science articles and analytical pieces on science/technology/ education related subjects both in national and international journals, books and magazines of repute.

He is currently Chairman of the NCSTC-Network formed by the coming together of some 36 agencies for undertaking coordinated nationwide science popularisation programmes.

We extend our hearty felicitations to Dr Sehgal.

EEC Training Database at NISSAT

The Commission of European Communities maintains a database which includes post-graduate and advanced training opportunities in the European Community, open to graduates and professionals from non-EEC countries. In the 6th edition of the database, 1346 courses covering the fields of agriculture, engineering, health, informatics and management from over 300 established training institutions have been included. NISSAT has acquired this database. Those who want to know more about the database or about any training course may contact the NISSAT Secretariat. There is no charge for the service.

Errata

Volume 10, No. 3 (July-Sept 1991), P. **12 RH Column: Para** 3, Line 5 *for* GIST-900, read GIST 9000. Line 7 *lor* ASC II Code *read* ISC II Code.

Video Film on NISSAT

NISSAT has completed preparation of a 'video film on NISSAT[1] in collaboration with the Science Communication UnilolC.S.I.R. Those who want to get the film may contact the NISSAT Secretariat. The cassette will be priced normally and marketed through a reputed agency.

Another video presentation on 'Online access' is under preparation.