EDUSAT (educational satellite) is a pioneering initiative in the digital revolution that is sweeping the educational and pedagogical arena. There are 1500 locations in India that are already receiving EDUSAT signals. We are expanding into the North-East as well with special outreach programmes. Elementary education projects are also in the pipeline. A teacher training programme in elementary education – a joint venture of the MHRD (Ministry of Human Resource Development), IGNOU (Indira Gandhi National Open University), and ISRO (Indian Space Research Organization) – is currently under way and is working effectively. This programme focuses on backward states such as Madhya Pradesh, Chhattisgarh, Uttar Pradesh, and Bihar. The programme implemented through EDUSAT enriches and increases teaching capabilities.

IGNOU at the moment supports 26 radio stations (Gyan Vanî), 124 video conferencing centres, 800 teleconferencing centres, and 4 television channels (Gyan Darshan). A number of emerging developments such as e-Gyankosh and Sakshat are also notable. e-Gyankosh, inaugurated in October 2005, is a national digital repository while Sakshat is a one-stop education portal being developed by the MHRD in collaboration with IGNOU. Also under way is the Pan-African tele-education and tele-medicine initiative and broadband connectivity to all regional and study centres.

Our future lies in the digitization of knowledge and education, as 50% of the higher education system would soon be converted to the open distance-learning mode, which is now an independent system. The library science departments in all universities must take the lead in content creation and digitization. We at IGNOU invite teachers to add content to the Sakshat portal. Digital learning has to come into force in all universities and institutions of higher learning irrespective of whether they follow the conventional classroom system or the distance education system.

In brief...

The chairperson initiated the session by putting forward his views on information storage and retrieval for global access. He focused on the various search methods used for retrieving information.

The discussion began with an emphasis on search strategy by using search engines like Google and Yahoo, the types of searches conducted by these engines, and the indexing process that they follow. It was stressed that the logical-linguistic model was one of the attempts made to incorporate higher level of processing and knowledge-based representation. Differences between semantic, syntactical, and logical search processes and the revenues earned by these search engines were also elaborated upon. The talk ended by comparing the various search engines in use.

This was followed by a presentation on WISE (Web-based Information Science Education), a consortium of 12 universities that have come together to share classes, students, and resources for a while, the pros and cons of providing online education and
the future of online education in the field of library and information sciences. A number of questions were raised leading to a lively discussion.

A detailed presentation on a study of the institutional repository of the J R D Tata Memorial Library was one of the highlights of the session. The presentation focused on the collection of electronic versions of theses and dissertations, and how they are stored in the digital format. It was stated that more than 6000 theses are available in digital format. The various steps involved in digitization of the document such as the theses were also described. Accessibility of thesis resources was also a major issue that was taken up in the session. The presentation included screenshots of stored theses and dissertations in the digitized format.

The session concluded with a hugely participative discussion following an enlightening talk on query interfaces for retrieving digital resources in Myanmarese language. The two primary query interfaces used for retrieving Myanmarese language resources were 'wild card' and 'automatic author name prediction'.

Session 1B
Digital library planning, development, and management

The session described in detail the Denmark government’s initiatives in improving libraries in the country. An internal reorganization of the existing tasks of librarians was stressed upon. With the introduction of the Internet, the role of the librarian has changed from a collectionist to a person with multiple connections with the World Wide Web. He recommended that tasks such as accession and acquiring documents could be outsourced. He emphasized on the new tasks of a librarian, like e-learning, knowledge management, analysis of information supply, e-publishing, copyright, and intellectual property rights.

The discussion focused on the role of INFLIBNET (Information and Library Network) in India in a digital environment, and elaborated on the meaning, definition, and core elements of any functioning digital library and introduced the SOUL library software. The Eleventh Five-year Plan recommendation on document models was emphasized upon. INFLIBNET focuses on packaged digital information software and advice to 149 universities and 3000 colleges across the country.

Workshop on access management

Chair Prof. S B Ghosh
Speaker John Paschoud, Information Systems Engineers of the Library, London School of Economics, UK

The workshop began with a tour of the LSE (London School of Economics), with special focus on the library. The LSE library has a collection of more than four million books, the world’s largest collection on social sciences. Discussion pertained to definition of AM (access management) and who can access what information and related problems. Four distinct processes of AM, namely, registration, revocation, authentication, and accounting, were deliberated upon. Different methodologies, such as individual registration or IP authentication were dwelt upon. Athens, a proprietary solution and one gateway to access control of collective resources, and its limitations of scalability, was also discussed amongst the participants.

This was followed by a discussion on challenges faced by publishers and online resource vendors, and on emerging requirements of users in the context of access to resources. AM technologies such as Shibboleth and SAML were explained and elaborated upon during the workshop. The workshop concluded with a brainstorming on infrastructure requirements and technical skills required for their implementation. It also made mention of the level of user education required to familiarize them with authentication system of the library.
The session focused on user needs, accessibility, and usability. The purpose of building a digital library will be defeated if it fails to offer customers what they want, if they are unable to gain easy access, or if they find using digital libraries too complicated, both in terms of content and navigability. The NASA digital library service allows searching of three databases with abstracts relating to astronomy/planetary sciences, physics/geophysics, and the archive e-prints, through almost five million records. There is a separate site dedicated to India among the 11 minor sites. The Knowledge Management Repository of TERI was discussed at length, including the e-library. The paper presented at this session generated a lot of discussion. Another significant issue discussed was the form of the library building keeping in mind the requirements of a digital library.

Recommendations made during the discussion referred to promoting preservation and usability of information; encouraging market research to promote the usability of digital resources; sharing information between libraries; and sending information alerts to users.

The session focused on DiLAs (Digital Library Annotation Prototype I), its goal, the support of ‘create annotation task’, expert evaluation system to re-design DiLAs, and so on. The annotation system coordinates with the metadata through the group participation evaluation methods. There are three types of evaluation systems and the project model describes these in brief. The meaning, benefits, and current publishing trends of e-books were also discussed. There was emphasis on ‘Google book search’ and the way it is digitizing material. Under Project Gutenberg, which produces e-books, the monetary benefits are given to the publisher rather than the author. There was a recommendation that this task be handled by government organizations rather than a corporate entity.

Ethical, professional, and social issues related to e-literature were brainstormed in the session. Google does not make available sensitive political information. The session also focused on the Cal Poly Digital Teaching Library, its initiatives, and its influence on the search environment. The emphasis was on collaborative co-design on the searching system of libraries. The five laws propagated by S R Ranganathan were also revisited. The session went on to discuss the status of information infrastructure and computerized library and information services of university libraries in India for information sharing and global access in networks and digital environment.

The concept of fair use in a digital environment, infringement of copyright, and digital rights management was the focus of another enlightening presentation, which primarily dealt with the paradigm shift towards the electronic media. Issues like remedies against infringement were emphasized upon.

The session concluded with a presentation on digital libraries, intellectual property rights, and evaluation of intellectual property rights in digital libraries.
Session 3B

e-Publishing

The session deliberated upon some of the important e-publishing paradigms and touched upon and attempted to present an e-publishing road map covering the usage pattern. A case study of INSA initiatives for institutional archive was also presented.

The discussion highlighted the pros and cons of movement of titles between publishers and the resultant implications for the creator, researcher, librarian, publisher, and the intermediaries. ‘Project Transfer’ launched by the UKSG (United Kingdom Serials Group) was also discussed in the session.

Establishment of a national-level gateway/portal of Indian scholarly journals, supporting multilingual format, was strongly advocated for by participants. Recommendations made during the course of the discussion were in favour of archiving for free and open access, more budgetary allocations to libraries for better R&D, and harmonization in pricing at e-publications.

Session 3C

Digital libraries and process

The session opened with a talk on the current trends in the art in RFID technology use in libraries, which included a case study of the University of Middlesex, UK. The need for international standards and the advantages of the RFID technology over traditional methods was emphasized.

This was followed by a presentation on selection of materials for scanning in digital libraries. Issues like the value of the document being digitized, demand for the said document, and the availability of the document in the digital form were stressed upon.

The need for avoiding duplication was also discussed and suggestions were made on a collaborative programme. Certain important principles for selection of documents like copyright preservation facilities, adequate financial resources, and guidelines to be followed while digitizing the document were laid down for future reference and use, followed by the recommendation of a National Digital Archive.

The session concluded with an inspiring presentation, titled ‘Digital librarians for digital libraries’. It emphasized the need for proper education and training for developing competencies among librarians to meet the challenge of the growing digital environment. The session stressed on the fact that there was a shortage of trained professionals in the prevailing work force. Some guidelines of the proposed training programme were also suggested.

Initiatives taken in European countries and subsequent digital library curricula developed at several universities were discussed with the help of an exhaustive survey, the results of which were presented. The survey revealed that more than qualifications in the field of library science, employers look for managerial and communication skills in prospective employees.