The pre-Asian Association of Open Universities (AAOU) Asian Librarians' Roundtable is the first of its kind for librarians of AAOU and other Asian distance and open education institutions to share their views on the use of the latest technology and the provision of library services to distance learners. This document describes the library services and recent developments, information management, planning efforts, networking, digital library systems and audiovisual materials, current trends and use of information technology in papers from 13 libraries of the Asian distance and open education institutions. Papers include: "The 'State-of-the-Art' of Information Management in the Bangladesh Open University Library" (Muhammad Saadat Ali); "The Library System and Its Services in China's Radio and TV Universities" (Xingfu Ding); "Library Services for Distance Learners in the Open University of Hong Kong" (Wai-man Wong); "Library Services in Shanghai TV University Library (in Chinese)" (Mei Yin He); "Library System and Information Services at the Indira Gandhi National Open University" (Neela Jagannathan); "Brief Note on the Services Provided and Future Plans of Dr. B. R. Ambedkar Open University Library, Hyderabad" (G. Sujatha); "Networking of Indian Open Universities: A Proposal" (Madhukar N. Shewale); "A Plan for the Development of the Library of Indonesia Open Learning University" (Effendi Wahyono, M. Hum); "The Establishment of Digital Library System for Audio/Video Materials" (Duk-Hoon Kwak); "Tun Abdul Razak Library, Institut Teknologi Mara Shah Alam, Selangor Darul Ehsan" (Wahid Sulaiman) "The Role of Electronic Library Service Supporting Distance Education Students, and Current Trends in Library Related Information Technology" (Abd. Akla Wan Ismail); "UPOU Library Plans" (Eleanor S. Payawal); "Library Services at Sukhothai Thammathirat Open University" (Somsuang Prudtikul). (AEF)
12TH ANNUAL CONFERENCE
ASIAN ASSOCIATION
OF OPEN UNIVERSITIES

2-3 NOVEMBER 1998
THE OPEN UNIVERSITY OF HONG KONG
HONG KONG SAR, CHINA

ASIAN
LIBRARIANS'
ROUND TABLE

CO-SPONSORED BY

The Open University of Hong Kong

The Commonwealth of Learning

The World Bank

BEST COPY AVAILABLE
Asian Librarians’ Roundtable Planning Committee

Forward

The ‘State-of-the-Art’ of Information Management in the Bangladesh Open University Library

Muhammad Saadat Ali
Librarian Incharge
Bangladesh Open University Library, Bangladesh

The Library System and Its Services in China’s Radio and TV Universities

Dr. Xingfu Ding
Vice-Director
Institute for Open and Distance Education
Central Radio and TV University, China

Library Services for Distance Learners in the Open University of Hong Kong

Wai-man WONG (Ms)
Librarian
The Open University of Hong Kong Library, Hong Kong

Library System and Information Services at the Indira Gandhi National Open University

Neela Jagannathan
Librarian & Information Officer
Indira Gandhi National Open University Library, India
Brief Note on the Services Provided and Future Plans of DR.B.R.Ambedkar Open University Library, Hyderabad

Dr. G Sujatha
Assistant Librarian
Dr. B.R.Ambedkar Open University Library, India

Networking of Indian Open Universities: A Proposal

Madhukar N Shewale
Assistant Librarian
Library and Resource Centre (LARC), Yashwantrao Chavan Maharashtra Open University, NASHIK - 422 005 (Maharashtra)

A Plan for the Development of the Library of Indonesia Open Learning University

Drs. Effendi Wahyono, M. Hum
Head, Universitas Terbuka Library
The Indonesian Open Learning University

The Establishment of Digital Library System for Audio/Video Materials

Duk-Hoon KWAK (Ph. D)
Director, Educational Media Development Center
Korea National Open University

Tun Abdul Razak Library, Institut Teknology Mara Shah Alam, Selangor

Darul Ehsan
Wahid Sulaiman
Deputy Chief Librarian
Institut Teknology Mara, Malaysia

The Role of Electronic Library Service Supporting Distance Education Students, and Current Trends in Library Related Information Technology

Abd. Akla Wan Ismail
Librarian, Library Universiti Sains Malaysia, Pulau Pinang

UPOU Library Plans

Eleanor S. Payawal
University Research Associate
University of the Philippines Open University

Library Services at Sukhothai Thammathirat Open University

Dr. Somsuang Prudtikul
Assistant Professor
Office of Documentation and Information
Sukhothai Thammathirat Open University
Nonthaburi 11120, THAILAND
Asian Librarians' Roundtable Planning Committee

Mrs. Wai-man Mok
Librarian
The Open University of Hong Kong Library
Hong Kong
email: wmwong@ouhk.edu.hk

Ms. Sue Parker
Co-ordinator
Information Resource Centre
Commonwealth of Learning
Canada
email: sparker@col.org

Dr. (Mrs.) Neela Jagannathan
Librarian
Indira Gandhi National Open University Library
India
email: ignou@delnet.ren.nic.in

Mr. Tai-Loon Fong
Assistant Professor
Applied Computing
The Open University of Hong Kong
Hong Kong
email: tifong@ouhk.edu.hk
Many open and distance education students are in full-time employment and may have family commitments as well. Their problems, arising mainly from a lack of study time, have constantly prompted the libraries concerned to explore new possibilities whereby it can be alleviated. One such solution is undoubtedly information technology, which has been progressing by leaps and bounds over the past decade.

To our great delight, not only have recent developments in information and communication technology, and in the publishing industry, revolutionised the provision of library services, they have also caused fundamental and far-reaching changes in such services and in the learning and study environment for the students.

The pre-AAOU Asian Librarians' Roundtable is the first of its kind for librarians of AAOU and other Asian distance and open education institutions to share their views on the use of the latest technology and the provision of library services to distance learners. The Open University of Hong Kong Library has much pleasure in hosting the event and hopes that similar functions will be held in the future.

The papers in this booklet describe the library services, their recent developments, and their use of information technology in over thirteen libraries of the Asian distance and open education institutions. Also available at the web site <http://www.ouhk.edu.hk/cridal/professional/aaou.htm>, these enlightening treatises provide a wealth of experience and expertise for those who have a role to play in library services for distance learners.

I wish to thank those who have contributed to the Roundtable, this publication, and the web site, and hope that the Roundtable will be a good start for future resource sharing and co-operation among Asian librarians serving distance learners.

Wai-man Wong (Ms)
Librarian
The Open University of Hong Kong

November 1998
1. Prelude

Bangladesh Open University (BOU) came into existence with a view to transform the country’s vast human resources into an educated and trained workforce by extending to them a wide range of academic programmes, both formal and non-formal in the field of Science and Technology, Education, Social Sciences, Agriculture, Business etc. by an Act of the Parliament in 1992. Subsequently, it brought within its fold the Bangladesh Institute of Distance Education - a single-based programme - maintain a uniform standard and to avoid duplication of efforts.

Situated in picturesque site in Gazipur, 30 Km north of Dhaka city, the BOU’s main campus accommodates office of the VC, Administration and School buildings, Library and Documentation Division, Printing Publishing Distribution/Production division, distribution store and a modern Media centre. Construction of the organizational structures is fast approaching completion with financial assistance provided by the Asian Development Band (ADB) and the Government of Bangladesh.

The BOU Library is at present situated in the up stair of a two-storied building. The independent three storied library building (1568 sqm or 16,870 sft) is already completed and is waiting to accommodate the Library. Library facilities are available at the Regional Resource Centres (RRCs) and the main campus at Gazipur. The RRC libraries provide facilities for listening and viewing of audio-video cassettes and reading and reference books for the students of BOU. The Central Library at Gazipur main campus is equipped with a large collection of books and CD-Roms on a wide variety of subjects including those on Distance Education. It provides reference and reading materials for teachers, research students and members of staff.

2. Library Personnel

The BOU is passing through its project period which can be called transition. But its aim is to run the Library by well trained staff. Its existing staffing pattern is quite-reasonable. They are:

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarian</td>
<td>1</td>
</tr>
<tr>
<td>Deputy Librarian</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Librarian</td>
<td>1</td>
</tr>
<tr>
<td>Documentation Officer</td>
<td>1</td>
</tr>
<tr>
<td>Cataloguer</td>
<td>1</td>
</tr>
<tr>
<td>Library Assistant</td>
<td>1</td>
</tr>
<tr>
<td>Word Processing Operator</td>
<td>2</td>
</tr>
<tr>
<td>Binder</td>
<td>1</td>
</tr>
<tr>
<td>MLSS</td>
<td>2</td>
</tr>
</tbody>
</table>
3. The 'State-of-the-Art' of Learning of Resources: Selection and Acquisition

Though it is not a conventional academic library, yet it is meant to serve a wide range of users. To meet increasing demand, it has a reasonable collections (12828 vols of books and 228 titles of periodicals) of:

i. Books;
ii. Periodicals;
iii. Government publications, gazetteers, pamphlets, posters, etc.
iv. Reports, proceedings, seminar and workshop-papers, graphic designs, survey, reports, etc.;
v. CD-Roms; vi. Audio-Video materials; vii. Globes, maps, charts, etc.,

Selection & Acquisition procedure: The library has its own book selection policy. Generally members of the different Schools and Divisions participate in book selection. After having library budget, every school and division is informed through a circular letter, so that they submit their required selected book lists in time. Keeping library's interest and subjects area in mind, concerned faculty and staff members accord final selection to books. Generally selection is made on the basic of two things;

i. Consulting publishers' catalogues;
ii. Spot selection from book sellers' stock

Conventionally the following rules are followed:

* Selected book list comes to the library with a recommendation from Dean/Head of the respective Schools/Divisions.
* Final selection is done and approved by the Library Committee, where the Vice-Chancellor is the Chairman and Librarian is the member-secretary of the committee. Other members of the committee are taken as per BOU Act.
* Finally, selection and procurement is done considering budget allocation and availability of funds.

Order of books:

Conventional practices are as follow:

i. To follow government rules, tender/quotation is invited through newspapers. Reputed books sellers and importers participate in the open tenders.

ii. Considering all the merits and other facilities, Tender Committee accepts the lowest bidders on the basis of comparative statement (CS) of prices of items offered by the bidders/tenderers.

iii. Finally work order is given to the selected firm(s) on approval of the competent authority under certain terms and conditions.
4. Processing

Classification: For classifying books, Dewey Decimal Classification (DDC) is being followed. But in DDC, classification number for 'Education' is narrower specially for Distance Education. To make accurate and comprehensive classification in this field only, we have been thinking to follow the classification systems devised by the British Open University, Milton Keynes, U.K.

Cataloguing: The BOU library has computerized cataloguing systems. Cataloguing is done on AACR2, Sears List of Subject Headings, Cutter Marks for proper call number of a book/resources. There is also provision of card catalogue. Generally catalogues are arranged alphabetically under divided catalogue system.

5. Maintaining the Resources within the Library

Open Access: Library has several open shelves/racks where general books and other resources are stored and arranged according to subject and Call No. Readers have open access. Thus the members/readers have right to take away book to the reading table for study/research or to circulation desk to get it issued for study at home as per rule. Books returned by readers are kept temporarily in special places and then kept at the rack according to Call No.

The charging system is yet to be computerized after introducing bar code system. To keep issue system active books are issued to the readers through Membership Card or Issue Register.

A set of approved library rules is strictly followed.

Like other conventional University and academic libraries, the BOU library has following sections and services:

Reference, Confined Books, Journal/Periodicals, Binding, Photocopy and Reproduction, Automation and computer services, Current awareness services, etc.

It may be mentioned here that, library is giving special attention for quick and easy dissemination of information. To achieve this goal, library has computerized catalogue and CDS/ISIS computerized documentation systems/integrated set of information system. Through this catalogue, a reader can easily find his/her required information. All information can be searched as dictionary wise under author, subject, title and so on. So user or reader may have specific information through this catalogue. Moreover bar Code system will be introduced very soon and it can be easily found out which books are on loan and who borrowed it and when it will be returned etc.

Current awareness service: Through computerized catalogue a periodical bulletin is prepared on current available/procured books, journals etc. with bibliographical information and is distributed to the schools and departments of BOU for ready reference and guidance.
6. **Electronic Library**

Audio-Video: The BOU has a large number of Audio & Video programmes produced by its Media Department and all are telecasted or broadcasted through TV and Radio for out students and Tutors of various formal courses. Besides, a large no of informal programmes are also tele or broadcasted for the mass people. These programme-tapes can be reused by our reader from Audio-Video section. Moreover, Other important related programmes of foreign organization can be procured for research and quality programme production.

Other Audio-Video materials such as 16 mm Films, Film Strips, Slides, Overhead projector, Epitaxiscope etc. equipment are being procured for reference use.

There are other non-book materials such as maps, atlases, charts, globes, models, learning sets, visual aids etc. and can be used on request and production purpose.

B. **Computer Network:** In future BOU library will be fully computerized. LAN and WAN network services to other libraries have already been linked up. Through these systems we can easily get information on line web-site of Journals, periodicals etc. Besides, CD-ROM, multimedia, teleconferencing, e-mail, fax, LCD panel etc. modern technology can be introduced through computer multimedia network system and can meet the demand of reader/clientele of BOU’s campus, regional centres, local centres, tutors and students in all over Bangladesh.

7. **Outreach Activities: A Future Plan of Action**

**I. Library Network Services**

Soon BOU library will have internet connections with other reputed libraries in home and abroad. Both LAN and WAN connections are being arranged by the BOU. By this time LAN connection has been made with the Regional Resource Centres (RRCs). Through this network e-mail services both in home and abroad have been introduced. Readers, members, tutors and students who have computer and e-mail connections, have opportunity to avail such services from the library. They may receive any information available in the library.

Through WAN connections library would collect or search information from other libraries in home and abroad and various sources available in web-site such as journals, periodicals etc.

**II. CD-ROM Services**

Library has CD-ROM drive and through this huge number of information can be searched from various CD.

i. A manual of the operation of network will be prepared for wider and proper services of the library network. This will help to operate library and to render services of the library.
ii. To facilitate library network services and readers services, for the interest of the BOU, a memorandum of understanding would be prepared, this will be contractual understanding between the libraries using the network facilities.

iii. Besides, Audio-Video conferencing services and telephone services can be introduced through multi-media system and that would be modern electronic services of BOU library.

Before conclude the topic, it can be assured that under the able leadership and guidance of the Hon'ble Vice-Chancellor, Prof. Dr. M Aminul Islam, who is also an eminent educationist-scholar-scientist, the BOU library will be fully automatised and computerized with all kinds of sophisticated modern electronic equipment soon. And it will be a unique library in Bangladesh.
The Library System and Its Services in China's Radio and TV Universities

Dr. Xingfu Ding
Vice-Director
Institute for Open and Distance Education
Central Radio and TV University, China
e-mail: xingfu@crtvu.edu.cn  http://www.crtvu.edu.cn/

Abstract

This paper examines the library system and its services in China's Radio and TV Universities (RTVUs). The paper begins with an introduction about the profile of the library system in China's RTVUs, focusing on its dispersed and multi-level structure and division of functions. Then the paper examines the library services in RTVUs, stressing on its characteristics in Chinese context. Finally, the paper discusses the current innovation towards electronic and/or virtual library services within China's national RTVUs system, its problems and the future development.

The Profile of Library System in China's RTVUs

Libraries, together with academics and laboratories are recognized as three essential elements of educational resources in China's universities. China's RTVUs, as a national distance teaching system, identify library together with course development center, computing center and laboratory center as the fundamental infrastructure and facilities for distance teaching and learning.

China's RTVUs have built up a dispersed library system with multi-level structure and division of functions. In the mainland of China, this national system of distance teaching constitutes 1 Central RTVU (CRTVU), 44 provincial-level RTVUs (PRTVUs), 831 city-level branch schools and more than 1,600 county-level working stations. Each of these RTVUs' institutions has built up its own independent library. It is a dispersed and hierarchical system with different functions for various level libraries. The library in CRTVU mainly provides services to its full-time academic and other professional staff, but not to students directly. The libraries in 44 PRTVUs serve for both academics and students. The libraries in branch schools and work stations mainly serve for their students locally, and the academics as well. Such a dispersed and hierarchical system of libraries is suitable for China's multi-level RTVUs and their teaching and learning nationwide. There were 21.1 million volume of total collections in whole library system of China's RTVUs in 1996. Taking CRTVU into account only, there were over 110 thousand volume of Chinese and other language books and other kinds of publication, and nearly 20 thousand units of audio-visual materials including computer diskettes and various kinds of laser discs.

The Library Services and Some Characteristics in China's RTVUs

The library system in China's RTVUs provide various kinds of services for both academics and students. Except its dispersed and hierarchical structure and division of functions mentioned above, there are some other characteristics deserved to be discussed.
One of the most significant functions for libraries in CRTVU and 44 PRTVUs is to provide services for academics in course development. This is because that academics in PRTVUs, especially in CRTVU are responsible for both curriculum and course development. The rich collections in various subject matters and different media help academics and other professional staff in their designing, creating and producing multi-media course materials.

Another major function for libraries in CRTVU and 44 PRTVUs is to provide facilities for various kinds of research and faculty development. One of the planned goal for future development of CRTVU's library is to be built up as the first class one with rich collections in information technology and its educational application, distance education, open learning, adult education and life-long education. It is constantly encouraged that academics and other professional staff make greater efforts of using library's facilities in their research, educational innovation and teaching reform, and professional development and updating.

There are two essential elements for distance teaching and learning: pre-prepared and pre-produced multi-media course materials and student learning support services including various kinds of two-way communications. In Chinese context, a great number of students, especially those living in remote and rural areas, who need learning support services most significantly, have problems of getting access to library's facilities and services. Thus, one of possible and feasible solutions is to provide all students with carefully designed and produced set books, including main textbooks, study guides, readings, and other supplemental materials.

In Chinese context, a dispersed system of libraries is suitable for students' demands. In this case, 831 libraries in city-level branch schools and 1,600 libraries in county-level work stations are most helpful for satisfying students' needs locally. Another character of Chinese distance teaching and learning is group-based in their working place or other community institution. The most students are organized in TV classes locally. They are able to get access to the library's facilities and services in group. The group-based mechanism is a relatively easy way for management and a high efficient and cost-effective way of using learning resources. This is especially significant for China, a developing country with severe shortage in educational facilities and resources.

In the past decade, in some extent, China's RTVUs system has shown its trend of convergence towards campus-based and face-to-face teaching and learning. This is especially true since national enrollment of school leavers in 1986. These students (Puzuansen) are usually organized in special campus-based TV classes studying full-time, some of them even have campus-based accommodation. Here the campus could be one of the 44 PRTVUs, 831 branch schools or 1,600 work stations. During the same period, in addition to ordinary facilities of library, computing laboratory, audio-visual production center and satellite receiving system, some kinds of new infrastructure have been built up in many campuses of RTVUs, such as audio-visual reading-rooms, audio-visual classrooms, computer networked classrooms, laser disc base and multimedia classrooms, campus-based FM radio stations with small power, campus-based cable TV systems, multi-function conferencing halls, campus-based computer networks, and so on. In this way, the ordinary concept of library and its services has been expanded into a better facilitated information and resources center within the campus, and students, organized in TV classes are able to get access to these facilities while studying at one of these nearest campuses.
However, since 1995, a pilot program of enrolling free-entrance students has been developed in China's RTVUs system. Up to now, the total number of enrolled free-entrance students by 38 PRTVUs has exceeded 250 thousand. Free-entrance students are encouraged to study independently and individually, but not to be organized in fixed classes and to complete their learning in classrooms on campus. That is, to realize more open and flexible learning. It is in fact the developing direction for whole RTVUs education, but not only for the pilot program in the future. This change of teaching and learning mode at distance requires outreach services of library and other educational facilities and resources. China's RTVUs system is now facing such a great challenge and has started to initiate a series of strategies to respond the new change and challenge.

Towards an Electronic/Virtual Library Network: Innovations and Problems

Information technology and its educational application provide China's RTVUs system with many new possibilities and opportunities in distance teaching and learning. Since last year, CRTVU and some PRTVUs has begun their exploration in this field. For example, CRTVU and more than 30 PRTVUs have built up their campus-based computer networks, some of them have set up their information and network centers connected with Internet and China's CERNET or other public communications networks. There have been established point-to-point communications between CRTVU and PRTVUs, and between PRTVUs and their branch schools and work stations as well for information exchange and educational administration and management. Other kinds of facilities for distance teaching and learning support services such as videoconferencing systems, consultant and tutorial e-mail box are also in practice. Among recent innovations, development of the electronic/virtual library and its outreach services is certainly a significant component. However, there is a long way to go to reach the destination. In today's world, there are more than 100 million users of Internet, but only 1 million (1%) is in China. In addition, the most Internet users in China are in business sector and concentrated in a few municipalities (Beijing, Shanghai, Guangzou etc.). Based on an incomplete survey on academics of China's RTVUs, around 10% of total academic staff use computers regularly in their professional work and less than 5% of academics are able to get access to Internet and to apply the e-mail facility. What about the students of RTVUs? There is no statistics on this matter. However, even for national key universities in China, it is not easy to get access to networked computers on campus for undergraduates and even for postgraduates. In July 1998, the first networked book shop in China has to be shut down in Shanghai because of the difficulty of its business. According to a professional sampling survey conducted in June 1998, the three major problems for Internet users in China are low speed, high cost and less information in Chinese. To make an electronic/virtual library system nationwide from idea to reality, China's RTVUs are planning to take following measurements of development with great efforts:

- to make libraries of RTVUs connected with their local campus based computer networks first, then to make major libraries accessible by RTVUs nationwide;
- to solve access problems for students in two modes: developing of home based PC connected with the various networks and building up of a study center network distributed nationwide with networked facilities;
to organize cooperation and collaboration in developing of various teaching and learning resources, including various kinds of CAI and multimedia software and courseware;

to encourage information exchange and to regulate various kinds of free and fee-paying services and management system; and

to introduce and use educational resources outside RTVUs system in China, as well as from overseas institutions, especially other distance teaching universities in Asian region.

In short, China's RTVUs have decided to develop an electronic/virtual library system and other infrastructure of educational facilities and resources in responding to the challenges faced by distance education and open learning when approaching the 21st century.

Dr. Prof. Xingfu Ding
Vice-Director
Institute for Open & Distance Education
Central Radio & TV University
No.160, Fuxingmen Nei Street
Beijing, 100031
China

Phone: 86 10 62380823 (H)
       86 10 66032233-0714(O)
Fax:  86 10 66039025 (O)
E-mail: xingfu@crtvu.edu.cn
The Open University of Hong Kong

The Open University of Hong Kong (OUHK) is the only local university recognised by the Hong Kong government which offers distance and open education to the Hong Kong community. It was established in 1989 as the Open Learning Institute offering degree, diploma, and certificate programmes in distance education mode in various subjects ranging from Arts and Social Science to Science and Technology. It was then renamed The Open University of Hong Kong in 1997. Since Hong Kong is small in terms of geographic area, the University runs on a one tier system with one headquarter and no regional centre.

Nevertheless, tutorials are held in places scattered all over Hong Kong to suit the needs of the students. Video programmes related to courses are broadcast to the students on Sunday mornings to enrich the contents of the courses. CD-ROM and IT technology are also applied to courses where appropriate.

The OUHK Library

The Library of the OUHK is situated in the Homantin campus of the university. Occupies 2,000 square metres, it comprises an AV centre, a Disabled Student Centre and a Language Laboratory. It provides study space for 304 students, and is open 84 hours per week. There are 25 full time library staff and 3 full time equivalent library casual workers serving 24,000 students and 1,400 staff and tutors. The Library operations have been fully automated using the DYNIX library system. It automates the acquisition, cataloguing, information services (online catalogue), serials, circulation and the reserved book room and has provided the automated library services since 1992.

There are three major collections in the Library: electronic, printed, and non-printed collection. There are about 1,000 electronic titles, which is equivalent to 500,000 printed volumes of materials; 45,000 volumes of printed materials; and about 1,700 titles of non-printed materials. The electronic collection could be viewed and used 24 hours a day via the Internet. Library users could access from home to electronic newspapers, journals, indexes and abstracts, various resources, and also the digitised examination papers by using the free dial-up kits provided by the Library. With the exception of reserved materials and reference materials, the printed collection is available for home loan by students, staff and tutors. The non-printed material is available for use in the Library.

To teach the users on how to make full use of the library services, orientation sessions, training classes and special literature search training classes are arranged at the beginning of each semester. Those users who cannot join the orientation or training could view the instructional videos prepared by the Library. Other services including photocopying service and interlibrary loan are also available.
Library Outreaching Services

Nearly all OUHK students are full time workers, and hence the Library is keen on making various its services readily available to the users by means of all possible arrangements. Providing efficient library services to save the valuable time of our students is always a major goal of the Library.

Online Public Access Catalogue

The bilingual online public access catalogue has been made available to users since late 1992. Students could access the catalogue on campus. The catalogue supports both English and Chinese. Since not all students know the Chinese inputting method from the keyboard, a special device known as “hand writing pad” was installed and interfaced with the DYNIX library system. The pad could recognise the handwriting of users and transform it into computer recognised form. In addition, selected students who have enrolled in computer courses could dial into the then student electronic bulletin board at any time of the day for the online catalogue.

The CD ROM Network

A CD-ROM network was set up in 1995. Users could access the network for 30+ databases from their desktop anywhere in the campus. Remote access was made possible to every students by making use of a special software “PC Anywhere”. While the system has been found to be popular, students are required to pay additional fees to purchase the client version of PC Anywhere before they could access the service remotely. This service is planned to be gradually phased out early next year with the establishment of the OUHK Electronic Library.

The Electronic Library

The above measures pave the way for the development of a fully-fledged electronic library in OUHK. The OUHK started its HK$40 million Electronic Library Project in 1997. The first phase of the Project was completed in the Summer of 1998. The electronic library after the first phase provides round-the-clock remote access to library services from home and expanded the library collection from about 40,000 volumes of printed collections to about 500,000 volumes of equivalent electronic collections. It also offers access to library catalogues of the higher education institutions in Hong Kong and overseas, as well as to previous OUHK examination papers and additional readings. All active students, tutors, and staff could have access to the above services, free of charge, on campus and at home.

All electronic library services, including online catalogue, electronic reserve collection, the electronic databases and resources, and distance education institutions, were integrated through a single web based common user interface. A built-in English/Chinese search engine ensures a quick response to users' enquiries. By simple point and click, users can obtain the information without the need for in-depth computer knowledge.

In addition, a video server was established to provide on demand instructional videos over the low speed Internet to teach users on how to use the electronic library services at their own time and pace.
Other Services

Information technology was utilised as far as possible as long as it could offer convenience to the OUHK users. An Interactive Voice Response System (IVRS) was set up in the Summer of 98 for telephone renewal. It is a system using information technology and the renewal could be done without human intervention. Besides, a CD-ROM on how to use the electronic library and campus library was developed for the users to extend the user education programme to the home of the students.

Co-operation with Public Libraries

The Library signed a memorandum with the public library system in Hong Kong in 1990 to make course materials and set books available in 15 public libraries scattered over Hong Kong. The online catalogue of OUHK Library has also been available to students in the major public library branches since 1993. Since DYNIX is being used by the public library in Hong Kong, the staff in the public library can easily handle enquires relate to OUHK OPAC searching without difficulty, which facilitates co-operation between the OUHK Library and public libraries and ensures quality support to the OUHK students.

When the public libraries started their Internet service in late 1998, linkage to the OUHK electronic library was permanently established on the public libraries' web page for the convenience of and easy access by the OUHK students. In other words, students could access OUHK electronic library services in over 40 public libraries equipped with Internet stations. Nevertheless, the service is presently in a restricted manner due to security reasons and contract conditions imposed by the database/resource vendors.

Future Plans

The provision of efficient electronic library services will continue to be one of the major concerns of the University to enable the learning environment to cope with changes in course delivery methods and to meet the demand of the community that university graduates have the necessary Internet skills. To build up a collection which is directly relate to the OUHK programmes, digitisation of materials on areas where electronic materials are not readily available on the market would be necessary. An e-text centre will be built up to maintain a balanced library collection.

At present, the electronic databases and resources are mainly text based to suit the slow data transmission speed of the modem. With the availability of the high speed Internet and the intention of the Hong Kong government to open up the telecommunications market, posting up multimedia information on the web for remote access would be possible on the broadband network in the near future. The latest information technology will also be adopted to allow user access to full electronic library services from public libraries without losing the security control.

On the other hand, more information literacy programmes will be developed to promote the use of the electronic library. This is to make the users aware of the services and to tie the services tightly with the study and leaning of the students.

Sept 1998
上海電視大學圖書館電子化及服務近勢

和美瑛
Librarian
Shanghai TV University Library, China
e-mail: luhuixi@online.sh.cn http://www.shtvu.edu.cn

世紀之交，科技的迅猛發展，促使一場電子革命席捲全球各個領域。積極應用現代信息技術，發展整體化建設是我國高等學校圖書館走向現代化發展的必由之路。上海電視大學圖書館正是在這一形勢下逐步取得了發展。

1 我館所處的網絡環境

1.1 中國教育科研計算機網（CERNET） http://www.edu.cn 1995年開通，它包括以其為依托的中國高等教育文獻保障體系（CALIS）。近期，它可向我館提供下述幾個方面的服務。

1.1.1 國內外書目查詢 利用遠程登錄（Telnet），登錄時（Login）統一使用相同 的用戶名public（無口令）。然後根據節點圖書館的IP地址進行書目查詢。同時也可對國外在Internet上公開供服務的近千所大學圖書館的書目查詢系統進行訪問。

1.1.2 各種文獻摘要數據庫、全文數據庫服務 數據庫的學科主要為工程、物理、化學和生命科學及中國高等學校碩士、博士學位論文摘要數據庫、學科國際會議論文數據庫。通過Internet我們還可訪問到世界上著名的類似Dialog的情報數據庫。

1.1.3 利用E-mail在國外實現快速的館際互借服務。

1.1.4 利用高等學校及其圖書館的Home Page 為學科專業人員服務 通過我校的www服務器對國內外高校及其圖書館的Home Page上所展示的豐富的信息進行檢索，獲取所需的信息。如我館經常從中央電視大學的Home Page（http://www.crtvu.edu.cn）上獲取最新的有關開放與遠距離教育的動態信息。

1.1.5 建設圖書館的電子論壇

1.1.6 CD-Rom數據庫的局域性共享、利用上網或遠程撥號訪問對光盤數據庫實行共享。

1.2 上海教育與科研計算機網（SHERNET） http://www.shtvu.edu.cn 1996年開通運行，它是CERNET的延伸，上海已有18所高等學校接入該網。以SHERNET為依託建立的上海高等學校虛擬圖書館聯合數據庫系統是CALIS的重要組成部分。目前運行在這一系統上的是“上海高校圖書館館藏中外文書刊資料聯合目錄數
1.3 校園網 上海電視大學校園網（http://www.shtvu.edu.cn）1997年啟動，與 CERNET、SHERNET接通。它主要可提供計算機輔助教學（CAI）、圖書情報資料檢索以及學校教務管理服務。該網通過 ISDN 實現遠程會議電視系統正為我校的開放與遠距離教育提供現代化的學習環境。

2. 電子服務的現狀

2.1 視聽室（A/V Room） 利用音像手段提供中央廣播電視大學學歷教育及我校非學歷教學各專業的課程學習，適應我校時間制學生自學及我校教師備課與科研的需要。目前正在考慮增設音像複製複制業務，旨在營造更為自主與靈活的自學氛圍。另外在室內已設有多媒體電子計算機向學生及教師提供使用 CAI 課件、 CD-ROM 及 VCD 服務。

2.2 網上檢索 以我校校網為依托，通過設在圖書館內的電子計算機終端對校園網、SHERNET、CERNET及INTERNET進行訪問。獲得以上網絡所提供的各項服務。我館 Email 地址：libr@shtvu.edu.cn。

3. 圖書館電子化進程

3.1 引進圖書館管理系統 根據高等學校圖書館“聯合與合作”發展原則，引進適合我館現狀的圖書館管理系統。以實現“提高圖書館自動化管理水平和信息服務能力；使讀者快速、準確、有效地查找和獲取所需信息資源；實現真正意義上的信息資源共享”的圖書館自動化建設的總體目標。

3.2 現實館藏的數字化 根據我館藏特點，逐步對音像資料、學科藏書（包括廣播電視大學各種學科各種載體的教材及 CAI 課件）數字化。打破“一校一館”的格局，加強各高校圖書館間的合作，共同提高CALIS工程的整體功能。

4. 總結

館藏資源電子化是電子圖書館的重要特徵之一，要建設好電子圖書館館藏資源是關鍵，也是信息服務賴以生存的基礎。基於這一理念，我們將著力於完成好二個方面的工作。一是調整採訪方針，逐步提高電子文獻館藏比例。二是重視虛擬館藏的組織管理和開發利用。

信息時代是網絡把我們聯結了起來，讓我們通過網絡把亞洲的開放與遠距離教育聯結起來，把世界的開放與遠距離教育聯結起來，共同迎接學習化社會的到來。
参考文献：

1. 楊宗英等。中國教育科研計算機網絡與圖書館的文獻信息服務。大學圖書館學報，1996（1）：7-11

2. 邱均平。適應信息時代需要大力推進我國圖書館自動化網絡化建設。大學圖書館學報，1998（1）：5-9
世纪之交，科技的迅猛发展，促使一场电子革命席卷全球各个领域。积极应用现代信息技术，开展整体化建设是我国高等学校图书馆走向现代化发展的必由之路。上海电视大学图书馆正是在这一形势下逐步取得了发展。

1 我馆所处的网络环境

1.1 中国教育科研计算机网（CERNET） http://www.edu.cn 1995年开通，它包括以中国为依托的中国高等教育文献保障体系（CALIS）。近期，它可向我馆提供下述几个方面的服务。

1.1.1 国内外书目查询 利用远程登录（Telnet）, 登录时（Login）统一使用相同的用户名public（无口令）。然后根据节点图书馆的IP地址进行书目查询。同时也可对国外在Internet上公开提供服务的近千所大学图书馆的书目查询系统进行访问。

1.1.2 各种文献摘要数据库、全文数据库服务 数据库的学科主要为工程、物理、化学和生命科学及中国高等学学校硕士、博士学位论文摘要数据库、学科国际会议咨询数据库。通过Internet我们还可访问到世界上著名的类似Dialog的情报数据库。

1.1.3 利用E-mail在国内外实现快速的馆际互借服务。

1.1.4 利用高等学校及其图书馆的Home Page为学科专业人员服务 通过我馆的www服务器对国内外高校及其图书馆的Home Page上所展示的丰富的信息进行检索，获取所需的信息。如我馆经常从中央电视大学的Home Page（http://www.crtvu.edu.cn）上获取最新的有关开放去与远距离教育的动态信息。

1.1.5 举办图书馆的电子论坛

1.1.6 CD-Rom数据库的局域性共享、利用上网或远程拨号访问对光盘数据库实行共享。

1.2 上海教育与科研计算机网（SHERNET） http://www.shtvu.edu.cn 1996年开通运行，它是CERNET的延伸，上海已有18所高等学校接入该网。以SHERNET为依托建立的上海高等学校虚拟图书馆联合数据库系统是CALIS的重要组成部分。目前运行在这一系统上的是“上海高校图书馆联合中外文书刊资料联合目录数
据库”。 年底“具有特色的或高等学校独有的文献数据”也将上网。 网络现可提供的服务主要是远程教育、医疗会议和图书资料检索以及常规服务（E-mail，FTP及TELNET）。

1.3 校园网 上海电信大学校园网（http://www.shtvu.edu.cn）1997年启动，与CERNET、SHERNET接通。它主要可提供计算机辅助教学（CAI）、图书情报资料检索以及学校教务管理服务。该网通过ISDN实现远程会议电视系统正为我校的开放与远距离教育提供优质化的学习环境。

2. 电子服务的现状

2.1 视听室（A/V Room） 利用音像手段提供中央广播电视大学学历教育及我校非学历教学各专业的课程学习，适应我校时间制学生自学及我校教师备课与科研的需要。目前正在考虑增设音像复录复制业务，旨在营造更为自主与灵活的自学氛围。另外在室内已设有多媒体电子计算机向学生及教师提供使用CAI课件、CD-ROM及VCD服务。

2.2 网上检索 以我校馆网为依托，通过设在图书馆内的电子计算机终端对校园网、SHERNET、CERNET及INTERNET进行访问。获得以上网络所提供的各项服务。我馆Email地址：libr@shtvu.edu.cn。

3. 图书馆电子化进程

3.1 引进图书馆管理系统 根据高等学校图书馆“联合与合作”发展原则，引进适合我馆现状的图书馆管理系统，以实现“提高图书馆自动化管理水平和信息服务能力：使读者快速、准确、有效地查找和获取所需信息资源：实现真正意义上的信息资源共享”的图书馆自动化建设的总体目标。

3.2 现实馆藏的数字化 根据我馆藏特点，逐步对音像资料、学科藏书（包括广播电视大学各种学科各种载体的教材及CAI课件）数字化。打破“一校一馆”的格局，加强各高校图书馆间的合作，共同提高CALIS工程的整体功能。

4. 总结

馆藏资源电子化是电子图书馆的重要特征之一，建设好电子图书馆馆藏资源是关键，也是信息服务赖以生存的基础。基于这一理念，我们将著重于完成好二个方面的工作：一是调整采访方针，逐步提高电子文献馆藏比例。二是重视虚拟馆藏的组织管理和开发利用。

信息时代是网络把我们联结了起来，让我们通过网络把亚洲的开放与远距离教育联结起来，把世界的开放与远距离教育联结起来，共同迎接学习化社会的到来。
参考文献:

1. 杨宗英等。中国教育科研计算机网络与图书馆的文献信息服务。大学图书馆学报，1996（1）：7-11

2. 邱均平。适应信息时代需要大力推进我国图书馆自动化网络化建设。大学图书馆学报，1998（1）：5-9
Library System and Information Services at the Indira Gandhi National Open University

Neela Jagannathan
Librarian & Information Officer
Indira Gandhi National Open University Library, India
e-mail: neela41@yahoo.com  http://www.ignou.edu/

Background

The Indira Gandhi National Open University (IGNOU) has been established by an Act of Parliament in September 1985. The organisational structure of the University has been designed to reflect each major functional area of operation. Accordingly it has at present, nine Schools of Studies and fifteen Divisions. The University follows a multimedia approach in producing learning packages and imparts instruction through self instructional print materials, face to face contact sessions, audio-video programmes, broadcasting, telecasting and teleconferencing. In last one decade, IGNOU has produced 38 programmes consisting 482 courses, published 2893 self-instructional materials, produced 782 audio and 756 video programmes. The University has established 21 Regional Centres, 342 Study Centres, 23 Partner institutions, 63 Multimedia Centres and 28 Distance Education Facilitators all over the country to provide support services to distance learners. The student support services include counselling sessions for providing guidance, peer group interaction, laboratory practicals, access to audio-video programmes and library facilities. In 1997-98, 163,394 students were admitted to various programmes courses raising the total number of students enrolled to 430,832. All together, 25196 students were awarded Degrees, Diplomas and Certificates in 1997-98.

Library System of IGNOU

IGNOU Library network operates through three-tier hierarchical system having Central Library at the zenith acting as the main coordinating link with the nodes i.e. the branch libraries at the Regional and Study Centres. The Central Library at the Headquarters combines the features and functions of both, an academic as well as a special library. This dual responsibility increases the complexities of library policies regarding collection development, selection of multimedia resources and acquisition management as well as rendering library and information services to its varied clientele at the Central Library and the branch libraries of the Regional and Study (R & S) Centres. The Central Library caters to the information needs of permanent academic, professional technical, and administrative staff as well as temporary consultants and other part-time academic staff posted at the Schools and Divisions. The library has enrolled 1474 members. The clientele of the libraries at the R & S Centres are students, counselors, academic and supporting staff of the Centres. The figure of membership at these R & S Centres differs depending upon the number of programmes activated and the enrolment of the students and counselors.

1 Dr. (Mrs.) Neela Jagannathan is the University Librarian & Information Officer at the Library & Documentation Division of the Indira Gandhi National Open University, New Delhi.
Collection Development

The Central Library possesses collections in various media to develop it into a Multi-media Learning Centre.

**Traditional Print Medium**
- Books, Reports, Conference proceeding etc. 58097
- Bound Journal 4111
- IGNOU Self-Instructional Materials (SIMs) 422
- Pamphlets 80
- Theses 14

**Miniaturized Medium**
- Micro-films 133
- Microfiches 5306

**Optical Medium**
- CD-ROM Databases 47 +132

**Audio-Visual Medium**
- Audio Cassettes 38
- Video Cassettes 2
  - Magnetic Medium
- Floppy Discs 76

IGNOU has a separate library for films, audio recordings and video recordings at the Electronic Media Production Centre due to shortage of space for stack room and viewing room area in the existing temporary building of the Library.

The Library has developed a special collection of distance education books, journals, course materials of the Open University - Milton Keynes, Indira Gandhi National Open University - New Delhi, Dr. B. R. Ambedkar Open University - Hyderabad, Yashwantrao Chavan Maharashtra Open University - Nashik and all the issues of the CD-ROM on Distance Education produced by the International Centre for Distance Learning, Milton Keynes from the inception till to-date.

The R & S Centres have a small library consisting of reference books, textbooks and books recommended in the SIMs for the programmes which are activated at each centre. They are also provided audio-video cassettes along with the equipment to render them usable. These audio-video programmes are supplementary to the SIMs and are played by counsellors during the contact programmes.
Library Services

The Central Library has been providing a variety of manual as well as electronic services to its users. Apart from the conventional library services such as reading, lending, reference, referral, bibliography, documentation i.e. indexing and abstracting, reprography, spiral binding and lamination, the Library also renders electronic services by retrieving information through OPAC, CD-ROM search, microform search and internet search. The Central Library provides inter-library loan service through which the users can access the union catalogue and borrow books for a short period from ninety five participating libraries in Delhi and neighbouring areas. In addition to this, IGNOU library has also become an institutional member of the American Center Library and British Council library to have an access to their print and non-print resources.

Computerisation of IGNOU Library System

The computerisation of the IGN'OU Library had started way back in 1989 when the library received PC-XT and library staff were trained first for the CDS/ISIS-version 1 and then for CDS/ISIS-version 2.1. A humble beginning was made by creating a machine readable catalogue using CDS/ISIS. In 1990, IGNOU library procured an integrated software called LibSys to automate all the house-keeping operations. 13000 records created in CDS/ISIS were transported to LibSys on XENIX operating system. In 1991 LibSys with DOS operating system was acquired as the XENIX version had a limitation of capacity. It was installed on PC-286 and transferred to PC-386 later. In 1993 LibSys with UNIX operating system networking all the sections of the library using 12 terminals was installed. At present all the house-keeping activities are fully computerised and documentation work of indexing and abstracting of distance education journals is also carried out. The activities computerised so far include Acquisition, Cataloguing, Circulation, Serial Control as well Indexing and Abstracting of articles. Library has also acquired one multilingual terminal to create a database of Hindi books. In order to make the circulation system effective and efficient all library books have been barcoded and the process of issuing bar-coded membership cards is in progress. In-house generation of barcode labels using barcode printing software is also done at the library.

Digitisation at IGNOU Library

The digitisation of the Library Accession Registers and catalogue has been completed. Library has databases of various accession registers and catalogues of books having different sequences as enlisted below:

- English books
- Hindi books
- IGNOU books
- Gift books
- Bound journals
- These
- Pamphlets
- Books form NBHM

General
H
I
G
J
T
P
MP
Library has also created databases using various software such as LibSys, CDS/ISIS, Dbase and so on. They are as under -

1. “Directory of Women’s Study Organisations of India” published by the Association of Indian Universities and the Commonwealth of Learning.


3. “Database of Annotated Bibliography of Distance Education Publications by IGNOU Staff”

4. “Database of Books sent to Regional & Study Centres and the Directory of Addresses of the R & S Centres”.

5. “Database of Periodicals including Subject Journals, Magazines and Newspapers” to retrieve information regarding titles of journals in each subject and lists of journals procured from each vendors.

6. “Database of Bound Journals”.

7. “Database of Articles Published in various Distance Education Journals”

8. “Database of Books and Analytical Entries of Chapters of Edited Books on Distance Education”.

9. “Database of Board of Management Meetings of IGNOU”.

**Future Plans**

1. **CD-Networking**

   The Library has already initiated action to install CD Workstation and CD Net to meet growing demands of the faculty members to hook to the CDROM databases through the existing university LAN and to have facilities of browsing as well as downloading sitting at their own desks.

2. **CD-Publishing**

   The library has a mandate to maintain archival collections of all important publications as well as meeting minutes of various bodies of the University for posterity. A modest beginning has been made by producing CD-ROM of the “Catalogue of IGNOU Publications (Print, Audio & Video)”. In the next three years, Library will take up the CD-ROM publishing of all IGNOU SIMs and other documents.

3. **On-line Access to Commercial Database**

   Library will subscribe to world wide on-line databases and journals to provide access to up-to-date information to the academic community.

4. **Internet Services**

   Library has devised a plan to launch internet service by locating, collating and organising scattered information on internet in the required format for the users.
5. Participation with External Library Networks

IGNOU Library is already an active member of INFLIBNET (Information & Libraries Network - a project of the University Grants Commission for networking of University Libraries) and DELNET (Delhi Libraries Network).

6. Local Area Network of IGNOU

The University has already initiated action to have Local Area Network (LAN) of nine School of Studies and fifteen Services Divisions. The library will play an effective role of transmitting information from the wealth of resources available at the library. LAN will facilitate the library to provide on-line and remote services such as -

a. On-line Public Access to Catalogue (OPAC)

b. On-line reservation of books to be borrowed

c. On-line reference and referral services

d. On-line request for reprographic services

7. Wide Area Networking of Distance Teaching Institutions

Actions have been initiated at the individual Open Universities and Correspondence Institutions to have Wide Area Networking (WAN). Once when the WAN is operable, libraries will be able to share and spare information and resources amongst each other. The staff, students and counsellors will immensely benefit by accessing information from the collections of various media and in varied range of physical formats of different universities.

8. Microform Laboratory

A number of rare documents are now available in the form of microforms. Micro films and microfiches are two important microforms which are durable and save space. IGNOU Library has procured Census from 1831 to 1971 and many other databases. Though microfilming is becoming an obsolete technology, microforms are easy to preserve and easy to retrieve information.

9. Subscription to list serves

At present library subscribes only to DENET list serve but in the near future library is planning to subscribe to various list serves of various disciplines to provide an access to information and render effective services to users.
**Library Publications**

Library has published a few publications and policies to have consistency in development and continuity in operations. They are -

1. “Catalogue of Library Publications (Print, Audio & Video)”
   - Edition 1 in 1991
   - Edition 2 in 1993
   - Edition 3 in 1994
   - Edition 4 is under preparation.

2. “Library Policies”
   - Library Rules
   - Circulation Policy for Central Library
   - Policy for Lending Books to Schools
   - Inter-Library Loan Policy
   - Gift Policy
   - Weeding Policy

   These policies are already printed in English. The Hindi versions of the policies are in the press.

3. “Library Brochure”
   Library Brochure has been already published in English and Hindi version is under preparation.

4. “Annotated Bibliography of Articles Published in Research and Distance Education Journals”
   Annotated bibliographies of articles published in several other refereed journals of distance education are at different levels of preparation.

**Conclusion**

With the advent of multimedia technologies - both computer as well as communication technologies, the role of distance Librarian is changing fast from mere Librarian as a custodian of books to Documentation Officer, Information Scientist, Media Librarian and now with the fast growing networks, internet and intranets, the librarian has to assume a role of Net Librarian.
Abstract

The main motto of the University is to provide opportunities of higher education for all the people who could not pursue their education in regular universities / institutions.

Over the last 16 years, the university has established 116 Study Centres for the benefit of under-graduate course holders and 13 post-graduate centres for counselling the students who are pursuing the post-graduate courses. At present 19 academic programmes are offered in different subjects leading to award of Certificate Courses, Diplomas, Bachelor degrees, post-graduate degrees, Master of Philosophy and Doctorate degrees.

II. About the Library

i) Establishment and Collection

The library at the Head Office of the University was established in 1983 to support the academic activities. Since then small libraries at various Study Centres and Post-graduate Centres are established to serve the students and counsellors at the respective centres.

At present the Central Library has a collection of 37,186 + books and subscribes for 180 journals in various subjects. Other collections at the Central Library includes maps, charts, theses, models, audio/video cassettes. Total books at all the libraries of the Study Centres are in the range of 55,180 + as on date.

Besides the above collection at Central and Study Centres Libraries, the Central Library has a philanthropic collection of about 25,000 books in different subjects donated by the family of late N.Venkateswara Rao, an eminent journalist. This rare and varied collection is kept separately and are open for reference only.
ii) Staff

The library is headed by a Professor-in-charge of Library supported by technical staff at various levels. In all, there are 18 members working in the library. Out of which four are Library Professionals with high academic qualifications (three Doctorate degree holders and one Master degree holder).

There is a library committee under the Chairmanship of the Vice-Chancellor of University with Deans and Directors of different branches as its members, which lay down and monitor the policies and functions of the library at the highest level.

iii) Building

The library is located in a sprawling building of 878 sq.mts. and houses all the activities of the library. The library has all the facilities such as telephone, copier, computer, etc.

iv) Finance & Budget

The library receives its annual grant from the University’s general grant which has its source from the Distance Education Council of University Grants Commission and matching gran from the State Government.

The library prepares its annual budget and spends its allocations as approved by the University.

v) Technical Process

Presently, the library follows DDC-19th Edition for classification and AACR-II for cataloguing.

vi) Library Services

From its modest beginning of offering lending and reference services to its members, in the beginning, the library has grown and now offers variety of services such as

- Reference and Bibliographic services
- Documentation - i.e. indexing and abstracting
- Current Awareness Service
- Reprographic Service
- Home lending of books and journals

Documentation abstracts and current awareness promotion services are provided by the Library in the areas of Distance Education, Environmental Studies, Women's Studies, Business Management and Trade, Youth, Religion, Mass Media, Commerce and Industry, Science and Technology and Socio-Economic & Political Affairs.
Documentation services are made available through

- A Documentation Bulletin (Monthly)
- Documentation Abstracts (Bi-Monthly)
- Current Contents (Monthly)
- New Additions to the Library (Quarterly)

The database of abstracts is created using (CDS / ISIS). Till to date 550 abstracts are available of which 45% are on Distance Education.

The above services are extended to Post-graduate Study Centres of the University.

vii) Clientele

The Central Library provides services to all the teaching and non-teaching faculty of the University, research scholars and students. Lending services are offered only to the staff and research scholars. Students are extended the reference services at the library premises.

viii) Computerisation

The computerisation of the library activities and services is under progress and is expected to be completed by February/March 1999. After completion of the computerisation, in the second phase Local Area Network (LAN) will be established connecting all the departments of the University to the library. In the third phase, the library will be provided with V-SAT connectivity, E-mail, Internet facilities. All the Study Centres will be connected with the Central Library through the dial-up facility and the Central Library will be connected to the proposed ‘OPENNET’, a network proposing to connect all the Open Universities in India.

III. Future Plans for Improvement of Library Services

The library has ambitious plans for improving its services to the students, scholars and faculty. After completion of computerisation, it has plans to connect all the Study Centres to the Main Library through Network and the distance learners can have access to the resources of main library through network from any corner of the State.

It is proposed to have internet service at the Central Library. With this its readers can have access to the resources of other libraries in the World which are available on internet. The Library has plans to extend this service to all the distance learners through network facility available at the Study Centres Libraries.

It is proposed to establish a multimedia unit in the library since the concept of distance education involves the multimedia approach of imparting instruction. The media unit is an important and essential part of the library.
Through this multimedia it is proposed to make available the distance education course material produced all over the commonwealth countries and as a part of this the Library has already acquired about 600 audio and video cassettes produced by various distance education universities. The CD ROM data base of distance education supplied by ICDL is already available to the teaching faculty of the University.

The Library has plans to extend the home-lending facility of books to the students through the Study Centres libraries.
Abstract

This paper discusses the objectives and the programmes offered at YCMOU. The contributions of Library and Resource Centre (LARC) and its feedback from the students have engineered an idea in the mind of the author of having a network of all the Open Universities in India.

I. Yashwantrao Chavan Maharashtra Open University (YCMOU): An Introduction

The YCMOU was established on 29 April 1989. The major objectives of the University are as follows.

To make higher vocational and technical education available to large sections of the population.

To give special attention to the needs of the disadvantaged groups like people in rural areas and the women.

To relate all courses to developmental needs of individuals, institutions and the State.

To provide an innovative, flexible and open system of education by using distance teaching methodology and by applying modern communication technologies to education.

To provide continuing adult and extension education to retraining adults in new skills to enable them to adjust to a changing technological environment.

To provide post-graduate studies and research opportunities especially in educational technology, distance education and development communication.

The goal of the University is to become a "Mass Varsity" or the "Lok Vidyapeeth". Most of its programmes are offered in the regional language (Marathi). The programmes lay a major emphasis on vocational/technical and research level courses. The structure, functioning and philosophy of the University is different from conventional universities. It has relaxed entry rules, flexibility in courses combination, flexibility in choosing the place and pace of the study, provision of individualised study etc. Their basic endeavour is to extend the University outreach so as to carry knowledge to the doorsteps of every aspirant. The open university plugs innovative path by supporting print material with audio-visual supplements and thereby making the message more effective and enduring as it reaches the deprived and disadvantaged.
2. YCMOU University Programmes

2.1 Research Programmes

Ph. D Subject Communication, Educational Communication and Distance Education
M Phil Subject Communication, Educational Communication and Distance Education

2.2 Post Graduate Programmes

M A / M Sc / M Com / M B A / M Ed Subject Communication, Educational Communication and Distance Education

2.3 Degree Programmes

Preparatory B A / B Com
B A, B Com, B Ed, B Lib & Inf Sci, B H Sc

2.4 Diploma Programmes

Diploma in School Management
Diploma in Applied Electronics
Diploma in General Electronics
Diploma in Advanced Electronics
Diploma in Computing Office Services
Diploma in Computer Operating
Diploma in Horticulture
Diploma in Industrial Electronics
Diploma in Communications Engineering
Diploma in Educational Management

2.5 Certificate Programmes (CP)


3. LARC - Library and Resource Centre of YCMOU

LARC, Library and Resource Centre is playing an important role in fulfilling the objectives of YCMOU (Yashwantrao Chavan Maharashtra Open University) by housing printed and other non-conventional materials like Audio, Video, and specially prepared course materials for its distant learners.

Like other Information Centres opting for automation, LARC started its automation program in 1992 and today its a fully computerised. Probably, it will be the first of its kind to get fully automated. It houses around 15000 printed books alongwith non-conventional study materials like Audio, Video Cassettes, etc.
3.1 LARC Resources

<table>
<thead>
<tr>
<th>No</th>
<th>Resource Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Printed Books</td>
<td>16000</td>
</tr>
<tr>
<td>2</td>
<td>Periodicals</td>
<td>210</td>
</tr>
<tr>
<td>3</td>
<td>Newspapers</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Audio Cassettes</td>
<td>225</td>
</tr>
<tr>
<td>5</td>
<td>Video Cassettes</td>
<td>250</td>
</tr>
<tr>
<td>6</td>
<td>(CD-ROM)</td>
<td>98</td>
</tr>
<tr>
<td>7</td>
<td>Paper Clippings</td>
<td>665</td>
</tr>
<tr>
<td>8</td>
<td>Project Reports</td>
<td>1200</td>
</tr>
<tr>
<td>9</td>
<td>Foreign Prospectuses</td>
<td>350</td>
</tr>
<tr>
<td>10</td>
<td>Photographs</td>
<td>950</td>
</tr>
<tr>
<td>11</td>
<td>Misc Reports</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2 LARC's Observation:

LARC has established a tradition of interaction between its staff and distant learners. The following paras will summarise the feedback which the staff received from distant learners regarding their expectations from LARC:

Library should be a key agent in enabling students/learners to prosper in the information society - helping them acquire new skills for employment, use information creatively and improve quality of their lives;

Library should play a central role in the lifelong learning projects, and in support of any individual who undertakes self development;

Library should be an integral component of the education system - facilitating homework clubs, support knowledge acquisition, and helping learners to access and interact with information resources worldwide;

Libraries should remain open to all, without pre-condition, whether for material in printed form or access to the wealth of resources available online;

Library and information Centres should make information about every emerging subject in the universe;
Library and Information Centres should also be at the leading edge of change and maintain their place at the hub of community like other commercial institutions;

Libraries should be the central point, networked, equipped with new technology, provide learners with the opportunities for group discussions (Chat) on the common area of interest. By that way new ideas will take birth;

The Library should be powerful agent for change: accountable to and trusted by people, and integral to education, industry, government and the community;

The Libraries should adopt new technologies and retain their spaces for books, study, exhibitions and events, but also they should gain new learning spaces, new services and new users;

The rapid spread of high performance communication will mean that even the most remote rural library will offer access to the same facilities as a large urban library, providing a means to draw in these people, who, through geography are furthest removed from the opportunities offered by the Information Age;

Librarians should add new skills to their current capabilities. They will help people overcome their anxieties about new world of networked and digitised information and assist them to navigate through it.

4. Networking of All the Open Universities in India: A Proposal

The biggest change in the field of Library and Information Centres of the organisations conducting distance education programs will arise from the intrusion of information technology in administering these programs. These revolutionary changes will bring about hitherto unused media in disseminating information and knowledge in terms of quality, quantity and speed to the distant learners. For organisations, whatever the technology, there will be a central role for library and information centres (LICs).

Education technologies and communication media are the key to the world of open and distance learning. Their effective implementation will shift the way in which we view education and roles of educators and media personnel. Modern technology has opened up new possibilities for education. Most of us still feel dazzled and bewildered by the sheer volume of options and possibilities afforded by the emerging technology.

The introduction of information and communication technology presents a challenge and opportunity for the educational institutions. Today as the prices of IT products are falling down and ownership of suitable systems are spreading, the day will not be far where the learners will seek the study material at their locus and on the desks.

Electronic access to information services is technically feasible and should be seen as one option in resourcing distance learning although ideally used in combination with other features like Inter Library loan (ILL) or postal loans. What is more important especially in the Indian scenario is the level
of individual motivation and need, availability of alternative resources, access to computing equipment and costs incurred. This is vital because in India studying through Open Universities is a taboo. This notion is fast changing as the Open Universities are having all the infrastructures equivalent to all the established Universities offering regular programmes. This is further proved by the fact that large number of students and working professionals are enrolling for distance learning either to supplement their existing qualifications or gain a degree at their doorsteps. There is a growing realisation in the Indian community that the promises of new technology have not been realised by the Distance Education community and nor have the distance Education Practitioners provided leadership in innovation application. One way to fulfill the promises is to have a Network of all the Open Universities in India.

4.1 The Following Open Universities in India Can Participate in this Exercise:

Dr. B R Ambedkar Open University, Hyderabad - 500 033
Dr. Babasaheb Ambedkar Open University, Ahmedabad - 380 003
Indira Gandhi National Open University (IGNOU), New Delhi - 110 068
Kota Open University, Kota - 324 010
Nalanda Open University, Patana - 800 001
Karnataka State Open University, Mysore - 570 006
Madhya Pradesh Bhoj University, Bhopal - 462 204
Yashwantrao Chavan Maharashtra Open University (YCMOU), Nashik - 422 005

The following facilities and be made available to the students who wish to enroll/ who are already enrolled:

a. Easy Access to University Programmes

By touch of a button the following questions from a potential student can be answered:

- The complete profiles of the Universities
- Variety of different programmes offered by them
- Subject-wise listing of the University programmes
- Comparative study of the programmes being offered on the basis of cost, duration, date of commencement of the courses, faculty etc.,
- Application forms can be accessed and submitted online. The response to whether he received the admission can also be done online by the Administration Departments of the Universities.

b. Study Material

Once a student enrolls into a University, he can access the study material online. He can also submit his assignments, projects through e-mail or using a ftp protocol. This saves a lot of time and money involved in postage thereby resulting in faster assessments. The Universities
can make available their Ph.D thesis, Research Reports, publications, dissertations submitted by students. This prevents duplication of research work.

c. Assessing the Students Online

Students can be assessed immediately if they have to answer multiple choice questions (MCQ's). The projects and assignments which are subjective in matter can be downloaded by the student through e-mail or ftp.

d. Interaction

Interactivity is regarded as being even more important in distance learning, in which the teacher and the students are separated by distances large enough to require some more advanced technologies like teleconferencing, video conferencing etc. Interaction can be continuous basis. At the postgraduate level students may be attached to a teacher/professor who will continuously evaluate and summari ly assess a student progress, including assignments. The study material should be structured in such a way that if a student gets stuck at any point in the syllabus, the tutor should know his problems immediately and respond to any queries by the student.

e. Database of Alumni

Universities can maintain a database of the students who have completed their programmes successfully. Students applying to any of the courses can have their addresses so that they can correspond to them and have a better idea of the quality of the programmes being administered. This in a way will boost the morale of the student and can give a good opinion regarding the credibility of the University.

f. Open to All

The very essence of the Open University is that it is not residential, but open to all, no matter what age or experience. Commitment to 'second chance' to have access to education for adult learners is commendable. The idea that the community and the university has changed this is because we see that what has become good for few is also good for many.

5. Conclusion

The above are my views on initiating a network of all the Open Universities in India. The major hindrance in materialising this network in India is finance. These Universities should justify that their is a huge demand for their programmes and convince the concerned authorities of the quality standards being followed.

6. Acknowledgement

I am extremely grateful to Principal Ashok Pradhan, Vice Chancellor, YCMOU for encouraging and allowing me to present this for the AAOU’98 Conference. I also thank Mr Nana Gopinath Shewale and Ms Preeti of The British Council who have given valuable inputs to this paper.
7. References

Http://www.nashik.com/eduinstitutes/ycmou.html


Shewale, M N, (1998), 'LARC: Harbinger of Change', *National Seminar on Advances in Information Technology at Midnapur University, West Bengal, India*.

Takwale, Ram (1998), 'Role of Open and Distance Education in Integrating Education with Development-Emerging Model of Networked Collaborative Learning and Net-working', *Indian Journal of Open Learning*, 7(1), 1-5.
A Plan for the Development of the Library of Indonesia Open Learning University

Drs. Effendi Wahyono, M. Hum
Head, Universitas Terbuka Library
The Indonesian Open Learning University
e-mail: effendi@ka.ut.ac.id  http://www.ut.ac.id/

Abstract

The Indonesia Open Learning University (Universitas Terbuka = UT) library has already established and implemented a policy to develop its collections to support the activities of Universitas Terbuka. The activities of Universitas Terbuka are based on: 1) three main purposes of any higher education institution in Indonesia (Tri Dharma Perguruan Tinggi = TDPT), i.e.: education, research, and service to the community; and 2) the vision of Universitas Terbuka (UT), which is to be the Center of Excellence in the area of management, research, development, and information clearinghouse in the field of distance and open higher education systems. Furthermore the library will be developed to be the electronic library so that it can give necessary services to and can be accessed by the Open University students who are all over Indonesia and even abroad.

Background

Open and distance education system seems to be the new paradigm in education and always have something to offer to everybody. Since it's history is linked to the development in communication technology, we read about the benefit that the system gets from the advances in electronic telecommunications and communication technology in the 1980s and early 1990s.

The Indonesia Open Learning University (Universitas Terbuka = UT) was established in September 1985. Currently UT has 400.000 students. The vision of Universitas Terbuka (UT) is to be the Center of Excellence in the area of management, research, development, and information clearinghouse in the field of distance and open higher education systems. The library of UT, as the learning resource and information center, should support the realization of this vision.

Referring to the above vision, the UT's library has to develop its collections as such that it can act as the research and information center in the field of distance education as well as in the fields appropriate to the programs offered by UT. The services provided by the library should be improved so that UT's students, who are all over and even outside Indonesia can benefits from those services.

Currently the library collections are appropriate to provide services only for the UT staff particularly in the field of distance and open higher education system and courses offered by UT. Services to UT's students are limited for them who visit the library which is located at the UT main office in Jakarta. The students are allowed to read the library materials but they cannot borrow them.
The library collections currently are about 25,000 exemplars or 15,000 titles of books and magazines. These collections are not sufficient to support the needs of UT's 1600 staff and 400,000 students. The collections cannot reach the students who are located all over Indonesia Archipelago. To reach those students the library already established cooperation with the various library institutions, such as Network of The Indonesia National Library, local university libraries. For students who live in Java island library services are provided through the network of state university libraries. Students can check out books using their UT's student ID card. Still many students cannot benefit from the service since they live far away from the nearest library.

UT can overcome the shortage of library service by developing the electronic library systems.

Development of UT's Library

To support the vision and mission of UT's to become the center of excellence in the field of distance learning, UT's library should be developed as such that its collections can make the library be the center of research and information about distance learning, and those collections can be accessed online by the UT students or staff. The online library services are made possible by the existence of electronic information and communication network technology.

There is already an established internet facilities at UT that makes it possible to access the internet and the web. At the main office in Jakarta, UT has a well-run local area network which has proved to be beneficial to connect a lot of activities among units such as examination center, computer center, the schools, and registration center. Some of the academic staff who work in a team utilize the LAN to write research proposals and reports and to develop computer assisted instruction programs. The LAN makes it possible to access the library collections from the units at the main office. Moreover the UT's library has become a member of the State University Library Network.

However, some of these provision cannot be used by many of the staff, even by the library staff. Many of the staff are not used to utilize the network, either the internet or the LAN system.

In the future, online library services will be a necessity. To anticipate the future need of online library service, some of the UT's library collections are already entered into the network which can be accessed electronically from the local area network or from the web. The collections are in the form of catalogues of 14600 books, 1119 titles of video or audio, 400 titles of UT's learning materials, and 845 research reports. These collections can be accessed online by the name of authors, the title of the books or the name of the publishers. Through the UT's library web site, users can access or even download the full text literature materials from other libraries which are online whether in Indonesia or in the World. Since most of UT's library collectiosn still are in print materials, the online library data displayed in the network are in the form of bibliography. The data do not have explanation whether the literatures needed are available in the library or are already borrowed by other users.

However, the main obstacle is that computer facility or access to online facility is still a luxurious thing and unaffordable to most of UT's student. That's why UT's library will establish working cooperation with other university libraries and the regional offices (UPBJJ), to extend the library services to students at
If Universitas Terbuka can establish online facilities with the 32 regional offices, it will be feasible to develop the point of library service in each of the regional offices. The point of library service can include a mini library, an online computer facility that makes it possible for a UT's student who doesn't have a computer to access the UT's main library services and gets other library services from the mini library. Since state postal offices all over Indonesia already established computer network which can be utilized by the public to access the internet, UT's students can rent computer time to browse the web.

Problems may arise which could hamper the development of electronic library system. The main problem is economic, i.e: the limited ability of students to afford to rent computer time or to own computer. In Indonesia, computer is regarded as a very luxurious and high technology thing. Many UT students probably are not capable of utilizing computer either for data or wordprocessing or for the accessing the internet.

Another problem is the lack of ability of the library staff to manage the electronic library. Currently the library has 13 staff, four of them are loaned from other units, only five of them have at least bachelor degree, the rest have less than bachelor degree.

The development of the library will include the improvement of the collections and staff ability so the library will have appropriate collections and staff skill to support an electronic library.

**Summary**

The number of UT's students are 400,000 located all over Indonesia and outside Indonesia, such as France, Dutch, Saudi Arabia. To serve the distance students, UT's library will be developed to become an electronic library. The main obstacle is the limited opportunity of the students to get access to the internet because of financial or ability constraints. The library staff need to be improved both in the quality or quantity so that they will have appropriate skills to support the management of an electronic library.
The Establishment of Digital Library System for Audio/Video Materials

Duk-Hoon KWAK (Ph. D)
Director, Educational Media Development Center
Korea National Open University
e-mail: dhkwak@av9500.knou.ac.kr  http://www.knou.ac.kr/

The digitalization of audio and video materials means transforming the great amount of analog-type audio and video broadcasting materials that are currently used in our university as study materials into digital data and saving it in the computer system. The digital data stored in the computer can be divided into broadcasting and educational materials. The broadcasting materials are used in radio or television broadcasting and the educational materials are provided for students who want to study their choice of subjects in a wanted place and time through Internet. The necessity of digitalization of broadcasting material can be found in many aspects.

First, it will make it available to have the construction of Education on Demand (EOD) system using computer networks (LAN, WAN, Modem). The EOD system will allow students to study whichever subject they choose regardless of time and place, if they are connected to a computer network.

Second, the digitalization of broadcasting materials is very helpful for the efficient utilization of space for storing broadcasting material. In case of KNOU, the sufficient space for storing original broadcasting recordings of educational programs provided by school is about 72 square meters and there are space limitations in storing the increasing broadcasting materials every year.

Third, it will contribute to construct the basis of digital broadcasting. Digital broadcasting is ‘technological revolution in broadcasting’; the realization of digital broadcasting will allow us to edit and send the educational programs of the university without the process of converting data.

Fourth, it can be a solution to the problem of limited broadcasting time. Students can study at home using computer networks, since they can select the required study programs that are saved in the large storage server.

Fifth, it will contribute to the establishment of Virtual Education system. Last February, the Ministry of Education examined proposals for the virtual university from public institutions, universities, and companies individually or in the form of consortium. As a result, five model operation bodies and ten experimental operation bodies were selected. Our university participates in the one of experimental operation bodies and three courses are being run using the Virtual Education system. It is quite certain that digital broadcasting lectures through Internet will be a proper method for Virtual Education.

The information society of the twenty-first century is closed at hand, and each field of the society is changing rapidly. In this view, digitalization of broadcasting material will play a big role in improving the specialization of college education, the educational use of informational technology, and the competitive-
ness of universities. Therefore, the course of development hereafter should be 1) construction of the basis for virtual education, 2) introduction of an efficient contents production system for digital production and editing, 3) liaison with digital broadcasting system, 4) connecting with the unified information system of the KNOU. Finally, KNOU will become one of the best distance education institutions of the next century, if we develop the uniqueness of the university in various fields.
Introduction

The Library of the Institut Teknology MARA (ITM) was established in 1960 under the Rural and Industrial Development authority (RIDA) at Petaling Jaya.

Later in 1972, a new permanent library building was completed at the Shah Alam Main Campus, and the Library was named TUN ABDUL RAZAK LIBRARY. (The late Tun Abdul Razak was the second Prime Minister of Malaysia).

In 1986, a second library was completed to serve the various faculties at the second Academic Complex. At present, there are 5 libraries (service points) at Shah Alam Campus serving about 26,800 students (22,900 full-time and 3,900 part-time) in the Main Campus. In addition to these libraries, there are eleven branch libraries situated at ITM branch campuses throughout Malaysia. They are in Perlis, Kedah, Penang, Perak, Melaka, Johor, Kelantan, Trengganu, Pahang, Sabah and Sarawak.

The total number of students for all campuses is about 57,000 students (48,300 full-time and 8,700 part-time).

Existing Library Facilities

The existence of a library is to serve its readers. In this context some of the services provided by Tun Abdul Razak Library are as follows:-

i. Borrowing of materials

ii. Providing reading areas/discussion room/24 hour room/carrel

iii. Reference services

iv. Photocopying services

v. Bibliographic services

vi. Browsing

vii. Reservation services

viii. Current Awareness services

ix. Inter library loan

x. Binding services
xi. Indexing and abstracting (selected local journal)

xii. SDI (on request)

xiii. Internet services

xiv. OPAC

xv. Electronic Information Services

xvi. Information literacy services

The library at the main campus and at all the branch campuses are in the midst of a computerisation program. Most of the library operations and the information retrieval system have been fully computerised. The modules that are fully operational and computerised are ACQUISITION, CATALOGUING and CIRCULATION whereas the SERIAL CONTROL MODULES and the INFORMATION RETRIEVAL SYSTEMS are not fully computerise yet.

The library uses the SISPUKOM, a locally created software (by ITM's Faculty of Information Management and a local software company-Paradigm) which is available commercially. SISPUKOM is a modular and integrated library system for library house keeping and user information systems which operate through modules.

The library has also constructed a homepage in the website in order to communicate with the other libraries. The address of the homepage is www.itm.edu.my (go to academic centres listing click T.A.R library).

The library collection (own database) can be accessed through the internet by using the QVT/net application.

Besides the library's database search, the library also provides other electronic services such as the CD-ROM search. The CD-ROM search is based on the CD-ROM that is available commercially in the market and acquired by the library either as a stand alone or on networking system.

The library also provides the ON-LINE DATABASE search. It is either based on locally created databases or international databases that are available commercially and subscribed by the library.

In addition to the CD-ROM search and on-line databases search the library also provides the internet databases search for its users. The users are free to search the available databases for whatever purpose.

The library has also introduced the MULTIMEDIA facilities to its users. The services is very popular amongst the student.

Future Plans

1. ILMU

   Even though the computerisation program of the library is not completed, the library is planning to migrate to a new application system known as ILMU (Integrated Library Management Utilities) in the near future.
ILMU is the enhanced and upgraded version of SISPUKOM. The advantages of ILMU over the SISPUKOM is that ILMU is based on 'client-server' and ERL technologies and thus promise easy access to LAN, WAN and Internet. Data processing can also be done faster, in a more efficient and effective manner.

2. **Document Imaging System**

The library is in the process of buying the document imaging system. The acquiring of the Imaging system is important because the library is planning to digitise some of its selected collections and make it available as online databases to be used by its users throughout Malaysia.

3. **Networking**

The library will provide networking facilities so that information can be distributed faster, easier and more effectively. Local Area Network (LAN) together with facilities from Campus Wide Area Network will help the on-line information from the library to be accessed by all branch libraries.

4. **Smart-card**

The use of smart-card will be introduced to all library users. The card can be used for:-

i. borrowing and returning of books
ii. to pay overdue fine
iii. to pay photocopying charges
iv. Membership registration
v. Payment for the library deposit
vi. Security - 'auto door'

5. **Computer Lab**

The library has submitted plan to provide facilities for computer lab in the library. Since the library is open from morning until night the users can use the facilities at their convenience.

6. **Shelf-check Charging System**

The system helps to ease the load of the counter staff especially during the peak period.
The Role of Electronic Library Service Supporting Distance Education Students, and Current Trends in Library Related Information Technology

Abd.Akla Wan Ismail
Librarian, Library Universiti Sains Malaysia, Pulau Pinang
Email: akla@usm.my http://www.usm.my/

Universiti Sains Malaysia Distance Education Libraries in Brief

The School of Distance Education (SDE) was established in 1971. At the same time the Library (which was established in 1969) already played the main role as a catalyst to support the process of teaching and learning. For this purpose the Library made a positive step by signing a memorandum of understanding and agreements with public libraries (state libraries) and regional centers (including college and polytechnic libraries) to facilitate the provision of library services for the distance education program.

Currently, 6594 distance education students are using library facilities in more than 20 resource centers all over Malaysia. There are 15 libraries that house non-science collections which contains about 1200 items each respectively. Another 11 libraries hold the science collection with about 800 reading materials each. With the introduction of new discipline, recently the library has setup 5 more centers with a basic collection of more than 100 items for engineering students. In the regional center libraries the reading materials is managed by resident tutors while in public libraries they are managed by professional librarians.

At the main Library itself, there is a special collection for distance education students. The collection is called Distance Education Collection (DEC). This collection holds about 4000 reading materials in all disciplines. There are another two branch campuses with the same type of collection, one in Perak and Kelantan with about 1000 reading materials respectively.

Library Services

Borrowing Facilities

- Students are allowed to borrow 2 items from DEC and another 2 items from the main library collection. The borrowing privilege is either by coming to the library or by postal services (the same concept as Inter Library Loan).

- Borrowing facilities from the regional center libraries is limited to two items only for a two week period.

- During the Intensive Course (which is held in main campus at the end of every year), students are allowed to use all the facilities in the library. They are allowed to borrow all reading materials including from the media collection (ie cassettes, cd's, video recording, maps etc).

- Students are also allowed to renew their loans through telephone and via email.
Library Catalog

- Printed copy catalog is available in all libraries. This copy is produced by the main library and is updated regularly.

Photocopy Service

- The main library also provides photocopy service for articles or chapters of book via the postal services. The Library charges for making copies and the mailing cost of the required materials.

Library Instruction

- The Library from time to time provides the students of distance education information or training needed to effectively utilize the library resources and services. The Reference counter is open for them to get extra information. For new students, the library schedules a special orientation session which includes a ‘library tour’ and other information about its services.

Access to Electronic Resources

- Currently, library electronic resources can be easily accessed through the Internet. Through the library’s homepage (http://www.lib.usm.my) service, the electronic resources such as OPAC (Online Public Access Catalog) is accessible from their home computer. The Library has begun a project to digitize some of the USM Press titles. Now users are allowed to browse electronic books (10 titles) and electronic public lectures (17 titles) and collections of past exam questions. Users also have access to Virtual Subject Libraries on electronic resources available in Internet and relevant to USM community. Up to this date 5 virtual subject libraries have been created. The selections of subject is done by librarians who have been trained to identify and evaluate quality resources related to the teaching, learning and research process.

- Online Reference Resources is also available for distance students. Although this local database is small but it very useful and it is a virtual concept of the reference counter.

- The Library also provides through its homepage access to course materials designed for distance learning. This project has been initiated recently and the number of such materials is expected to increase.

Future Plan

- Library is working on a joint understanding between academic libraries so that students are free to use the utilities and services or borrow materials from nearby libraries. There are a numbers of academic libraries distributed all around the country, and at least every states has one.

- Every library (in the Regional Center) will be linked with computer, so that all users can easily access to the current services provided by main library such as OPAC and Webpage.

- The Library will expand its electronic resources by developing in-house databases with content relevant to distance education.

- The Library will allow students to make electronic inquiries via the Internet.
Conclusion

- With the advancement of computer technology and the expansion of the USM computer network the Library will be able to services to long distance learning equal to what on-campus students receive.

- The Library is preparing itself for the new challenges and the need to reevaluate and revise its services to dovetail with the refinement of the distance education programs.

Acronyms/Abbreviations:

DEC = Distance Education Collection
OPAC = Online Public Access Catalog
SDE = School of Distance Education
USM = Universiti Sains Malaysia
About the University of the Philippines Open University

The University of the Philippines Open University (UPOU) is the 5th autonomous university of the University of the Philippines System. It is the autonomous unit mandated to offer distance education programs. Other units offer residential, on-campus programs. The UPOU has 20 program offerings. These are in the fields of health sciences, education, management, entrepreneurship, and science. These programs are offered in 27 UPOU learning centers — 26 in the Philippines and one in Hong Kong.

Delivery of instruction is primarily through printed self-learning modules supplemented with other media including video, television, and computer networks. The students assume autonomy over the learning process. They study on their own time and place. Learning support is provided through study sessions in the learning centers where students may also access other instructional, supplementary materials, and reference books. To further support the information needs of our students, we send them copies of the materials they need or ‘readers’ before hand. In our Ph.D. program, students are provided with books which they can use for the whole semester.

We are aware of the importance of having a library of our own to support the information, reference, and research needs of our students. We know that our students need to have the knowledge and skills in locating, accessing, retrieving, evaluating, managing, and making use of information in a variety of fields. They will also need to be exposed to updated information.

How do we plan to support the information needs of our students?

Factors Considered in Planning Our Library System

We consider the following factors in planning and setting up our library system.

I. Distance Education Students' Geographical Location

Our students are scattered all over the Philippines. The cost of transportation is therefore quite expensive for students to travel from their province to the UPOU library. For most students going to the learning center is also a hassle because some have to cross bodies of water and pass through rough roads.
2. Access to Technology

Most distance education students have no access to computers. Unstable electricity is also a problem in some areas in the Philippines. Means of communication — telephones, fast mails — are not reliable or available in some locations. Internet is also quite new in the Philippines. Internet service providers have not reached most of the islands in the Philippines, thus, some of our learning centers and students do not have access to the Internet.

3. Students Computer Background

Technology literacy is also something we have to consider. Since not all students are reached by this technology, some students are still computer illiterate.

4. Students Study Time

Our students mostly are part time students. They work from Monday to Friday, 8 hours a day. They are usually free during weekends or after office hours. It is most convenient for them to visit the library during their free time.

Possible Means of Library Services

Considering all these factors, we came up with a list of possible means of providing library services. We considered each way’s effects to the students and the problem we could encounter based on the experiences of other universities.

The following are the ways we can support our students’ information needs: readers, learning centers’ reading room, electronic library, and consortium with local libraries.

1. Readers

Readers are compilation of information resources and readings that are provided to the students. As mentioned earlier, we are already using this method to provide the students the necessary information they need for their studies. This is the easiest and cheapest way of providing them more information.

This system has been effective in supporting our students in their learning. However, some reports manifested that providing or giving out all information affects the development of students learning skill. Watson (1997) reported that this approach encourages rote learning and retards the development of critical life-serving information seeking and information gathering skills. Students miss the opportunities for broadening intellectual stimulation that prescribed documents and predetermined readings do not support. It also hinders the acquisition of knowledge in tangential and related areas of interest to individual students, which access to quality library and information stimulates. The approach also reduces the need to develop contacts with libraries and staff. It hinders the development of providing quality library and information service to distance learner.
2. Learning Centers Reading Room

A collection of references and textbooks will be stored in all the learning centers for immediate access for students. However, the book collections will be limited to references or textbooks required by the courses offered in the learning center. The books will be for room use only since only a limited copies of books will be provided. A reading room type library will be maintained in the learning centers because of the following reasons:

1) It would be very expensive to maintain a library in all learning centers especially when our enrollment increases. Purchasing books in multiple copies is very expensive for the university;

2) If we have all these libraries we would need to hire several librarians to keep and maintain the collections. The learning coordinator and staff will not be able to do all the tasks of administering the modules, exams, assignments, other communications while keeping the library;

3) Our learning centers do not have enough space to keep these materials. There is a minimal possibility for these learning centers to expand because we are utilizing the facilities of other institutions.

In our experience, some learning centers returned the text books sent to them when the course requiring the book is not offered. Their reason for returning is that they do not have space to store the books.

3. Electronic Library

The UPOU plans to maintain its own library in the central administration. The catalogs and abstracts of the collection will be computerized. Students will have access to the catalogs and abstracts through the Internet. Request for copies of the information could be made through e-mail, phone, or fax. Materials could be sent through fast mail, e-mail file attachment or fax. Computers and modems would be made available in all learning centers. In places that do not have Internet Service Provider (ISP) they could dial up to the nearest place where there is an ISP.

To increase our collections we plan to join the Department of Science and Technology - Engineering and Science Education Project (DOST-ESEP). The DOST-ESEP is a consortium of eight academic libraries. It aims to increase the number of faculty members and research staff in eight academic institutions with masters and doctoral degrees in the following fields of specialization: biology, chemistry, computer science, earth science mathematics, molecular biology and biotechnology, pharmacology, physics, and statistics. The role of the library is to provide information support to the students, faculty, and research staff involved in the project. They develop the collection through cooperative acquisition of multimedia materials including electronic resources. They also acquired databases on CD-ROM for faster access of information. The library services were computerized.

The DOST-ESEP scheme is to stock books in the libraries depending on the subject areas assigned to them. When clients need materials housed in any of the libraries outside their own, copies are requested through phone or e-mail. Articles are sent by fax while books are fetched or delivered.
tification cards are issued to students of any member institution under the program to enable them to use all the member libraries. Under this networking scheme resources are shared by the 'holdings' library with the 'accessing' library.

4. **Linkage with Local Libraries**

For students who are far from the learning centers and who have good local libraries near their places could probably visit and utilize these libraries. A linkage between UPOU and other libraries could be established. The method of borrowing and loaning used by the DOST-ESEP could be adopted by the UPOU for its linkages with local libraries.

There could be objection from these libraries for reason of overloading their reference staff, which could be a disadvantage for their own students. However, linking with other local libraries could be a good opportunity for these libraries to improve their library services. Since electronic library is still rare in the Philippines it is an opportunity for local libraries to be exposed to this technology. The experience could be a start for local libraries to improve and develop their libraries to a more advance system using new technology.

In summary, the UPOU plans to use all these system simultaneously to make up for the insufficiency of one system. For example not all students can visit their learning centers regularly. As an alternative, students can just go to the member library nearest to them. The learning center would also be used as a center for communicating to the central library. Computers with modems and internet access would be made available in the learning centers. Readers packages will be minimized to encourage students to utilize the libraries. Systematization of the four systems will be an efficient way of supporting the information and reference needs of the students.

Details on how to make this plan systematic and efficient are still being studied by the UPOU. Attending conferences such as the AAOU Round Table for Librarians would help us a lot in planning our library system.

**References**


Library Services at Sukhothai Thammathirat Open University

Dr. Somsuang Prudtikul
Assistant Professor
Office of Documentation and Information
Sukhothai Thammathirat Open University
Nonthaburi 11120, THAILAND
e-mail: diispsom@samsorn.stou.ac.th http://www.stou.ac.th/

Introduction

Sukhothai Thammathirat Open University (STOU) employs a distance education system that enables students to study independently at home. To facilitate and support the students' distance study, the University provides various types of academic services including library and information services.

Library and information services are provided through the Office of Documentation and Information (ODI). As the University's central library facility, ODI is responsible for developing and managing library systems, acquiring printed and non-printed materials, organizing technical processes and procedures for classifying, cataloguing and indexing materials according to library science principles, and creating tools and finding aids to provide a variety of effective library services for its users. ODI established the STOU Library Network to provide complete library services throughout the country for STOU undergraduate and graduate students and the general public.

The Office of Documentation and Information utilizes computer systems to enhance the capacity of ODI services. In 1994, ODI installed the VTLS Library Automation System. Currently, six modules of the VTLS System are being used to handle library activities and services namely Acquisition, Cataloguing, OPAC, Circulation, Serial Control and Journal Indexing. The ODI automated library system is able to link the STOU Library Network to other networks in Thailand and overseas thus enabling ODI to provide library and information access to national and international networks.

Library and Information Services

A Model for Library and Information Services

The Office of Documentation and Information provides central, regional and provincial library and information services to benefit various target groups including STOU faculty, students and the general public.

1 Central Services

Central library and information services are provided through the Office of Documentation and Information in the Documentation Building and the Academic Building 1 on STOU's main campus in Nonthaburi. The main purpose of the library is to make resources available to STOU faculty, staff and course teams to produce self-instructional materials and other supplement educational media. ODI also offers basic library services to STOU staff members, researchers and the general public. Students are able to use the central library facilities when they attend training seminars and activities at the University.
Regional Services

Regional library and information services are provided at Academic Development Service Centers and Graduate Educational Resource Centers.

Academic Development Service Center

The Thai Government allocated a budget for the University to establish ten centers in the various regions of the country. Currently, seven centers are operational in the following provinces: Nakorn Si Thammarat, Nakorn Sawan, Sukhothai, Lamphang, Ubon Ratchathani, Udon Thani and Petchaburi. Academic Development Service Centers serve as STOU library branched and provide library and information services to STOU graduate and undergraduate students and the general public. The Centers provide various educational media and materials including self-instructional media, textbooks, reference books and books of interest to the local community, video and cassette tapes, STOU educational television and radio programs, and computer-assisted instructional media (CAI).

The Center serves as a repository and service center with current library materials. In the near future, each Center will be equipped with a computer network system that will enable users to link and exchange information with the University and outside networks.

Graduate Educational Resource Centers

STOU established Graduate Educational Resource Centers to provide graduate students with complete library and educational media services which include self-instructional materials, reference books and textbooks to facilitate their academic research. In cooperation with various government agencies six centers were set up in 1993.

The National Library of Thailand under the Department of Fine Arts cooperated with the University to set up three Centers in National Library Branches in Chantaburi, Nakon Ratchasima and Chiang Mai. The Bangkok Metropolitan Administration also provided cooperation which enabled STOU to set up a Center at Suan Lumpini Public Library. In cooperation with the Department of Non-formal Education, a Center was set up at Huo Hin Public Library in Prachuap Kirikhan province. The most recent center to be established is located in Tinsulanonda library in Mahawicharawut School in Songkhla province.

Provincial Services

Provincial Services are offered at STOU Corners located in 75 provincial public libraries. STOU Corners were established by the University in cooperation with the Department of Non-formal Education, Ministry of Education. In the Bangkok Metropolitan area, the University received cooperation and assistance in establishing STOU Corners at Soi Pranang, Suan Lumpini, Phasicharoen and Bang Khen public libraries. STOU also opened an additional STOU Corner in Songkhla province through cooperation and assistance from Tinsulanonda library at Mahawicharawut School. In addition, STOU also provides special services at Bang Kwang Correctional Facility in Nonthaburi for inmates who are students at the University.
Each STOU Corner serves as a repository and service center which is equipped with various types of selected materials and media prepared by ODI to benefit undergraduate students and the local community.

**Services**

The Office of Documentation and Information provides the following library and information services:

1. *Reference and information services*

   Library staff members are available at each branch to assist users in locating materials and information.

2. *Loan service*

   Loan services are available to STOU faculty, staff and students and those who apply for membership. The number of items on loan and the loan period varies according to the status of the borrower and the availability of the item.

3. *Inter-library loan service*

   As a member of the Thai University Libraries Cooperative Project, STOU staff members and students are able to borrow materials from other academic libraries under the Ministry of University Affairs. Library materials can be borrowed upon request by filling out an interlibrary loan request form.

4. *Information access and retrieval*

   The University has numerous electronic databases in various subject areas for use among STOU faculty, staff and students. Library staff are available at the Reference Desk to advise users on the most appropriate resources and how to access them.

5. *Photocopying Service*

   Photocopies of materials from the library's collection may be made for a minimal fee. Graduate students may request and receive photocopied materials by mail or fax.

6. *Orientation and library visits*

   Orientation for new students and an introduction to using library services are arranged once a year. The library provides assistance to STOU staff in the use of OPAC, specific databases and new library resources as well as search strategies. Library visits are also arranged for the general public upon request. STOU provides opportunities for students to attend library tours conducted while attending activities and workshops on the university campus.
The Use of Information Technology for Library and Information Services

The Office of Documentation and Information has long recognized the necessity for introducing computer and information technology to develop the library and information services. ODI uses computer and information technology for a wide range of library functions.

Information Retrieval and Data Searching

1. On-line Dialogue

ODI has been a data-member of Knight-Ridder Information Co., Inc. (USA) since 1986. This service provides University personnel with access to academic networks of various areas of studies.

2. CD-ROM Databases

ODI has subscribed to various CD-ROM databases. Currently, the databases available to University staff and students include ERIC, ADO, SIC and Laser Quest.

3. Internet

Through STOU’s computer system, users are able to access information on the Internet at ODI.

Creation of Specific Databases

ODI has been developing its own databases since 1988. Initially, Micro CDS/ISIS software for microcomputers was used for creating databases as a research project. As a result, three databases were developed, namely Printing Technology, Telecommunication and Information Technology databases. Subsequently, more databases in different areas were created by using BRS/Search software to function as a tool to access information. Currently, ODI has databases in six areas, namely Printing Technology, Telecommunication, Information Technology, Science and Technology, Distance Education, and HM King Prajadhipok’s databases.

Library Automation System

In 1994, ODI installed the VTLS library automation systems. Currently, ODI uses 6 modules of VTLS for conducting basic library tasks, namely Acquisition, Cataloguing, Circulation, OPAC, Serial Control and Journal Indexing.

As a member of the Thai Central Academic Library Network, THAILINET, the government allocated a budget to ODI in 1995 and 1996 to expand the library automation system. As a result, ODI’s library automation system is able to link to various STOU systems, and the national and international institutions of higher learning, thus enabling ODI to expand its services and provide more effective and efficient library services to students through long-distance requests.
Future Plan for Library Development

According to the university plans and policy, the library network will be linked to ten Academic Development Service Centers within a few years enabling STOU students at each Center to search for data and information in ODI electronic databases via terminals installed at each center. Students will also be able to search for information from other institutions of higher learning and other information centers worldwide.

(August 1998)
I. DOCUMENT IDENTIFICATION:

Title: 12TH ANNUAL CONFERENCE ASIAN ASSOCIATION OF OPEN UNIVERSITIES (AACU) ASIAN LIBRARIANS' ROUNDTABLE

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature:

Printed Name/Position/Title:
WONG WAI-MAN LIBRARIAN

Organization/Address:
THE OPEN UNIVERSITY OF HONG KONG LIBRARY
30 GOOD SHEPHERD STREET, HOMANTIN, KOWLOON, HONG KONG

Telephone: (852) 2768-6778 Fax: (852) 2789-3530
E-Mail Address: Wongwai@ouhk.edu.hk Date: 18 January, 2000

(over)
III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

<table>
<thead>
<tr>
<th>Publisher/Distributor:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Price:</td>
<td></td>
</tr>
</tbody>
</table>

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

<table>
<thead>
<tr>
<th>Name:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td></td>
</tr>
</tbody>
</table>

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERIC Clearinghouse on Adult, Career, and Vocational Education
Acquisitions Coordinator
1900 Kenny Road
Columbus, OH 43210-1090.
U.S.A.

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2nd Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com