The DOST-ESEP Libraries: the First Library Network in the Philippines

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Introduction

In developed countries where the computerized library system is a mature technology, a computerized library network is perhaps no longer a novel project. In the Philippines however, where the automated library system is available in only a handful of libraries, the launching of the DOST-ESEP Library Network on November 22, 1995 is a milestone in the history of librarianship in the country.

The DOST-ESEP Library Network was envisioned to: 1) build library resources and services in eight academic libraries; and 2) provide connectivity by means of the information highway in the Philippines, the (PHnet), which is also the country’s gateway to Internet. It was proposed as an integral component of the Department of Science and Technology - Engineering and Science Education Project (DOST-ESEP). The DOST-ESEP was designed to develop manpower, instructional and research capabilities in eight academic institutions in support of the country’s bid for NIC- hood by the year 2000. Implementation of the project was made possible through a loan from the World Bank and counterpart funds from participating Institutions.

Background

When the plan was submitted for funding in 1991, the Philippines did not have the infrastructure necessary for implementation. There were very few telephone lines in each institution and brownouts were frequent and of long duration. There were however plans for establishing a data network for the country.

Telecommunications Infrastructure

In December 1993 the Philippine Long Distance Telephone Company installed the main router for the PHnet, the country’s gateway to the Internet. In July 1994, the National Information Technology Board was created to manage the implementation of the National Information Technology Plan 2000 (NITP 2000) which described the overall strategies for IT use and IT production in the country. By 1994 institutions were demanding networked library resources and access to Internet. At present there are twenty-two Internet providers in the Philippines.

Library Computerization

Only a handful of libraries in the Philippines have integrated library systems, namely, Don Bosco Technical College (developed in-house), Ateneo Professional Schools (developed in-house), Thomas Jefferson Cultural Center (Datatrek), International School (Winnebago), Asian Development Bank (VTLS), International Rice Research Institute (Innopac). Other libraries which have computerized systems though not integrated use micro-CDS/ISIS, INMAGIC or BIBASE to create their electronic catalogs and/or indexes and produce catalog cards and/or book catalogs/indexes. The theological libraries also use BIBASE for their circulation system.
More recently, CD-ROM abstracts and indexes, and full text journals have been installed in major academic, research and special libraries all over the country. Some libraries have opted for Internet access only while other libraries have all of the above services.

The DOST-ESEP Library Network Members

The eight academic institutions participating in the project are:

- Ateneo de Manila University (ADMU)
- De la Salle University (DLSU)
- Mindanao State University - Iligan Institute of Technology (MSU-IIT)
- University of Santo Tomas (UST)
- University of the Philippines in Los Banos (UPLB)
- University of the Philippines in Manila (UPM)
- University of the Philippines, Diliman College of Engineering (UPDCE)
- University of the Philippines, Diliman College of Science (UPDCS)

Areas of Concern and Action Plans

With the assistance of a consultant, Dr. Bruce Royan of the University of Stirling, the librarians of the network libraries identified areas of concern, action plans and performance indicators for the project.

The areas of concern included components for building the library resources and services and operationalizing the network. The action plans addressed these concerns.

Library Collection

The existing collections were not sufficient in quantity to support the planned manpower and research development programs. The serials holdings were fragmented among several libraries. There was also extensive duplication of titles. Reference materials were out of date. The acquisition of materials was uncoordinated and costs were prohibitive.

To address these concerns, the librarians agreed to have a cooperative scheme of acquisitions and that all serials purchased under the DOST grant will be housed in the University of the Philippines Diliman Campus. Engineering materials and science materials will be housed in the UPDCE and UPDCS libraries respectively on condition that the two libraries commit to continue subscription to the selected journals beyond the project duration. There would absolutely be no duplication for serials even if these titles will be purchased using funds outside of the grant and therefore housed in respective libraries. Reference materials will be duplicated in each library as needed.
The subject areas where library resources will be built in assigned institutions are:

- Mathematics (ADMU, DLSU, UPDCS, UPLB)
- Physics (ADMU, DLSU, UPDCS)
- Biology (UPDCS, UPLB)
- Molecular Biology and Biotechnology (UPDCS, UPLB)
- Chemistry (UPDCS, DLSU, ADMU, UST, UPLB, MSU-IIT)
- Statistics (UPDCS, UPLB)
- Earth Sciences (UPDCS)
- Pharmacology (UPM)
- Computer Science (ADMU, DLSU, UPLB)
- Engineering (UPDCE, DLSU)

**Depository Library Provisions**

The space available in the Diliman libraries was insufficient to house the new materials and new readers. There was also a need for scholars to have access to the collection either on-site or offsite and for longer periods. The present staff size was not adequate to provide service to the new clients.

The depository libraries agreed to provide and refurbish the appropriate space; provide unrestricted access to all bonafide researchers of cooperating institutions, extend service hours and acquire additional staff. In addition, the members of the cooperating institutions agreed to have reciprocal borrowing privileges for scholars under the project. Appropriate identification cards were later issued to them.

With funds from UNESCO for the fiber optic cables, hubs and routers, the two depository libraries in Diliman linked with the PHnet node at the U.P. Computer Center thus ensuring a 24 hour access to the catalogs.

**Library Networking**

The concerns identified included the need for 1) excellent bibliographic, subject and inventory control, 2) need for reciprocal access to information about availability of materials and document delivery from any of the cooperating libraries, and 3) the eventual need for access to and from libraries outside the network.

The action proposed to address these concern included 1) the use of Bibliofile, a CD-ROM cataloging resource for retroconversion, 2) the installation of an integrated library management system in each library, and 3) the installation of a union catalog of holdings and networked CD-ROM abstracts and indexes to be housed in the central library, 4) the provision of online public access to each member library via the PHnet.
or for libraries outside the network, access is via the public telephone system, 5) document delivery by fax, FTP or by post as required by the clients, and 6) use of uninterrupted power supplies, provision of adequate back up of the system and data, and continuous technical support from the supplier and user group to ensure uninterrupted service.

**International Access**

Access to the services and databases on the Internet was provided via the PHnet. Access nodes in all the campuses of the cooperating institutions were installed. Except for the University library in U.P. Los Banos all libraries now have cable connection to their respective PHnet nodes which provide full Internet services (see Table 1).

**Training Program**

Staff were trained and will continue to be trained in local and foreign institutions to learn of experiences in other countries/institutions and to obtain masters degrees in information/library science/management. The training program was designed to achieve a wide spread diffusion of skills in the effective use of IT and networked resources initially among the members of the network and eventually to other institutions.

**Consultancy**

A mix of foreign and local consultants as appropriate were provided for project management, networking, procurement and future expansion. Terms of reference which include a review of the library system and recommendations for improvement/expansion of services were prepared for the consultants.

**Performance Indicators**

When envisioned, the specific aims of the DOST-ESEP library network were:

1) To provide the member libraries with an integrated library system which they can use independently of each other while at the same time providing access to a union catalog and/or reciprocal access to each other’s catalogs;

2) To build library resources and services adequate to support the eight member institutions identified for the masteral programs in science and engineering through a cooperative acquisitions program and efficient document delivery mechanism;

3) To provide member libraries with access to Internet and all its services via the PHnet;

4) To provide non-member libraries access to the network library catalogs via the public telephone system and/or any Internet provider;

5) To achieve a widespread diffusion of skills in the use of IT by providing training for members and non members and by acting as demonstration sites for other libraries wishing to automate;
To ensure continuity of service even after the duration of the project by means of a fund raising scheme and proposing the establishment of a National Science Library and Information Center.

**Table 1.** Internet addresses of DOST-ESEP Libraries

<table>
<thead>
<tr>
<th>Library/IP addresses</th>
<th>URLs and telnet addresses</th>
<th>E-mail address and Fax no.</th>
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<tbody>
<tr>
<td>Ateneo de Manila University IP 165.220.6.19 3</td>
<td><a href="http://www.admu.edu.ph/HOMEPAGE/vtour/building/rizallib/rizallib2.html">http://www.admu.edu.ph/HOMEPAGE/vtour/building/rizallib/rizallib2.html</a> telnet://rizal.lib.admu.edu.ph login as OPAC</td>
<td><a href="mailto:gerry@pusit.admu.edu.ph">gerry@pusit.admu.edu.ph</a> Fax no: (632) 924-4428</td>
</tr>
<tr>
<td>De la Salle University IP 165.220.8.43</td>
<td><a href="http://www.dlsu.edu.ph/offices/lib/telnet://tinlib.dlsu.edu.ph">http://www.dlsu.edu.ph/offices/lib/telnet://tinlib.dlsu.edu.ph</a> login as OPAC telnet://isis.dlsu.edu.ph login as isis</td>
<td><a href="mailto:LIBPTG@dlsu.edu.ph">LIBPTG@dlsu.edu.ph</a> Fax no: (632) 508835</td>
</tr>
<tr>
<td>University of Santo Tomas IP 165.220.32.1</td>
<td>[<a href="http://www.ust.edu.ph/ustlib/html">http://www.ust.edu.ph/ustlib/html</a> or <a href="http://ust.edu.ph/libnow">http://ust.edu.ph/libnow</a> telnet://165.220.32.1](<a href="http://www.ust.edu.ph/ustlib/html">http://www.ust.edu.ph/ustlib/html</a> or <a href="http://ust.edu.ph/libnow">http://ust.edu.ph/libnow</a> telnet://165.220.32.1)</td>
<td><a href="mailto:cleb4@ustcc.ust.edu.ph">cleb4@ustcc.ust.edu.ph</a> Fax no: (632) 731-3034</td>
</tr>
<tr>
<td>University of the Philippines Libraries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Banos IP 165.220.22.1 3</td>
<td><a href="http://www.uplb.edu.ph/lib/">http://www.uplb.edu.ph/lib/</a></td>
<td><a href="mailto:vga@mudspring.uplb.edu.ph">vga@mudspring.uplb.edu.ph</a> Fax no: (094) 2326</td>
</tr>
<tr>
<td>Diliman: College of Engineering IP 165.220.18.1 0</td>
<td>[<a href="http://www.engg.upd.edu.ph">http://www.engg.upd.edu.ph</a> telnet://dianne.engg.upd.ed.ph](<a href="http://www.engg.upd.edu.ph">http://www.engg.upd.edu.ph</a> telnet://dianne.engg.upd.ed.ph) login as OPAC</td>
<td><a href="mailto:bnacorda@elisa.engg.upd.edu.ph">bnacorda@elisa.engg.upd.edu.ph</a> Fax no: (632) 920-5301 loc.5532</td>
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The network had its successful launching on 22 November 1995, four years after it was conceptualized. Effectiveness indicators measured in terms of the extent objectives were achieved and areas of concern addressed point to a successful implementation of the project.

Library Resources and Services

Library resources and services are still being developed to a level sufficient to support user needs. Materials not available in the network libraries are acquired from other libraries and information centers within and outside the country through a document delivery mechanism developed by the librarians.

The target acquisition of new materials are as follows: 100 books per subject area per institution per year and 50 titles of journals per subject area per year in addition to those already acquired by the institutions through their regular budgets. The number of titles ordered has however exceeded the planned targets due to an increase in the budget allocated for library materials. The aggregate collection of materials in the eight academic institutions is currently one million book titles and four thousand serial titles respectively.

Scholars and members of the faculty have been issued identification cards which allow them access to any member library. The servers could be accessed from any computer on or outside the network 24 hours a day and documents are delivered upon request. In addition library users now have access to the Internet and its services. Requests for documents are sent by fax, e-mail or post (see Table 1).
Staff Training and Recruitment

Two of the network members sent for masters degree programs in library or information science/management in foreign universities (University of New South Wales and the University of Sheffield) have obtained their degrees. They are currently managing the network. A third scholar will finish his degree this year.

Of the five sent for masters degrees in library science at the University of the Philippines only one has finished. Two will finish this year and another two in 1997. A sixth slot has been made available this year. The graduates are expected to train staff in their respective institutions and manage their local area networks.

Of the twenty-one slots allocated for short term training abroad, only thirteen have been availed of. Echo seminars by returning trainees have insured a widespread diffusion of skills in the use of IT in library automation and networking among the staff of the library network and other libraries.

Additional staff have been added by all libraries to meet the increased client and technical service requirements.

Integrated Library System and Reciprocal Access

The network libraries now have autonomous library systems (TINLIB version 280 of IME) with reciprocal access to each others catalogs via the PHnet. Training on site and in UK has been provided by IME to the staff of the network. Staff expertise on the use of all the modules of TINLIB running on UNIX has been brought to a level where the staff can now confidently train others and maintain the system. Online support via the Internet is also provided by IME upon request.

The choice of a common library system was decided by the technical committee of the network libraries to have a uniform platform, training programs, import profiles, etc. across the network and for ease in establishing a user group/systems administration group. TINLIB was chosen because it met the systems specifications prepared by the technical working group, and had favorable references from users. Additional features which gave it an edge over other systems is its utilization of hypertext techniques, client-server architecture, and ability to import and export data from any of the databases existing in the network libraries.

The Future

The library directors and heads are under tremendous pressure to continue and expand the networked services. Four of the services which need to be implemented immediately are:

1) the creation of a union catalog for books, audio-visual, serials and Filipiniana articles and researches;

2) access to CD-ROM abstracts and indexes and full text journals and references from any site on the network, subject to copyright and licensing agreement with suppliers and publishers;

3) development of networking navigation tools and training programs; and
4) building of sufficient monetary resources and/or commitment of university officials to allocating sufficient funds for the maintenance of the network.

5) transforming the College of Science library into a National Science Library and Information Center to widen the scope of its services and obtain funding from sources outside the University of the Philippines.

Other future plans are in the area of providing a better document delivery mechanism to members and non-members, developing training and consultancy services to other libraries wishing to automate and join the network, and providing access to special collections.

**Conclusion**

The successful launching of the DOST-ESEP library network on 22 November 1995 brought library automation and networking in the Philippines to maturity. The network provided Filipino researchers and librarians access to information located in libraries outside their own. It has also provided researches outside the Philippines with a venue to the information available in the country. The number of library users and interlibrary loan requests from within and outside the country have increased significantly since the launching. It is an indication of the impact and the need to continue and expand the service.

**Abbreviations, Acronyms and Initialisms**

ADMU - Ateneo de Manila University

DLSU - De la Salle University

DOST - Department of Science and Technology

ESEP - Engineering Science Education Project

MSU-IIT - Mindanao State University - Iligan Institute of Technology

NIC - Newly Industrialized Country

NITP - National Information Technology Plan

PHnet - Philippine Network

UST - University of Santo Tomas

UPDCE - University of the Philippines Diliman College of Engineering

UPDCS - University of the Philippines Diliman College of Science

UPLB - University of the Philippines in Los Banos

UPM - University of the Philippines in Manila