

De La Salle University Library System Migration: a Strategic Decision

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Introduction

The De La Salle University-Manila has one central physical library to support the undergraduate and graduate programs of seven (7) academic units namely, College of Business and Economics, College of Computer Studies, College of Education, College of Engineering, College of Liberal Arts, College of Science, and the Graduate School of Business. Every trimester the University Library has an average number of potential users of about 10,500 undergraduate students, 3,000 graduate and post-graduate students, 480 full time faculty members, and 365 part-time faculty members. Currently the University Library contains close to 265,000 books, 10,000 audiovisual materials, and more than 31,000 bound periodicals. It provides more than 10,000 periodicals, 95% of which are accessed electronically.

Background

Library automation at DLSU-Manila had undergone a gradual but steady development. It started in 1985 when it implemented the MINISIS software/Hewlett Packard 3000 hardware package. The system was able to create 11,000 bibliographic records for Filipiniana and Reference collections. The massive hardware maintenance problem led to a management decision to phase out the system in 1988. At the later part of the same year MINISIS was replaced by its micro version known as CDS-ISIS. The software with one stand-alone XT computer facility automated the indexing of articles from more than 100 locally published periodicals including newspapers, magazines, and journals. Additional databases were created as the number of computers increased. The index became searchable simultaneously by several users when the computer facilities were networked in 1992. In the same year the CD-ROM technology was introduced for information retrieval of selected indexes and abstracts.

In October 1990, the DIALOG Information Retrieval Service allowing remote access to more than 400 databases of indexes and abstracts from a broad scope of disciplines was introduced to the academic community. The dial-up ordering and the conventional delivery mode of full text articles and documents were made possible through this service. DIALOG online service ceased in 1998 and was replaced by First Search OCLC. In 1993 the University Library subscribed to the country's first online remote service, HERDIN (Health Research and Development Information Network) that provided access to about 8 databases that cover ASEAN and Asia-Pacific documents and hosted by PCHRD of DOST. The following year the INTERNET, a global information facility, became available in the university enabling the library users to avail the E-mail facility. The same year the ISIS OPAC was mounted in the local area network providing access to book catalog and articles index.

During the early part of school year 1994-1995 a needs assessment survey was conducted. The results confirmed the need to establish an integrated library system including the automated circulation. It was timely that in 1995, the University Library received a grant from the Department of Science and Technology – Engineering and Science Education Project (DOST-ESEP) for the library system software called TINLIB with the end view of networking the library resources of seven (7) universities. Despite the struggle the DLSU Library encountered in running the system during the first two years the circulation module was successfully implemented in February 1997. Toward the end of the decade the system was upgraded incorporating the suggestions made by the participating libraries. The new version was renamed T-Series which enhanced the loan process and improved the other information management functions of the earlier edition.

The upgraded version of the system has become an inevitable feature at DLSU Library. However, when it was established that the vendor of the system has closed shop and has merged with another company, the University Library started to work on the future of the library system that can be considered to replace T-Series.

Reasons for Change

Technical Development and Vendor Stability

A major factor considered in the replacement of T-Series is the discontinuation of its development and the closure of the vendor's company. Its capabilities have become limited to meet new demands of users. Likewise, the existing hardware and operating system that support the T-Series are no longer compatible. The DLSU Information Technology Center that provides the technical support to the University Library cannot update nor upgrade the system.

Networking

Since T-Series is DOS-based its access on the Internet via Telnet slows down the connection to online catalogs. Faculty and students demand a more accessible connection to library's online system. The University Library has to provide the ISIS WEBOPAC as an alternative to T-Series OPAC.

Expansion of Databases

Adding other databases to the online system including periodical indexes, full-text databases and locally produced-databases requires expanded hardware facilities and new or upgraded software. This means that the replacement should have the needed capabilities and capacity that can accommodate these demands. The interface of the on-going online access to various database subscriptions with the new system became a primary concern.

Migration Criteria to a New System

There were several factors that were considered when the University Library started to evaluate and select a new automated system in this current climate of fast-paced technological developments, vendor instability, and expanding users needs and demands.

Support for Migration

One critical factor in the selection of a new system is the experience and reliability of the vendor in migration. It is essential to determine if the vendor has converted any system. Securing the names of libraries that have migrated to the new system can give vital information on the length of time the conversion process will take place, data that may be problematical, precautions the library might be able to take, and the preparations that will be helpful to the library and to the vendor. This can also give some indication of how responsive the vendor to the library's needs and the quality of support the vendor extends to the library staff.

Adherence to Standards

There are many kinds of data that must be transferred--- the bibliographic records, patron files, and item records to name some. There is a much better chance of success if the new system adheres to as many standards as possible; for instance, the recognition of standard bibliographic records, the protocol for data transfer, and international norms for connectivity, interfacing, and networking.

Capability of Expansion

In anticipation to interfacing the current database subscriptions to the online catalogs that include externally developed indexes; full-text databases of periodical articles, encyclopedias and locally-produced materials including images requires much capacity and capability of the new system. The capability of expansion and or interfacing with other modules and systems warrant a large enough system.

In addition to the size of the databases, the new system has to allow for enough users. As the system become easier to use and more available on networks, the number of simultaneous users increases. The possibilities for expansion to increase access beyond the library walls such as from faculty rooms, public Internet ports, homes and dormitory rooms have to be considered in the selection process.

To cope with the changing technological environment the system needs to be upgraded through regular releases as part of the ongoing maintenance contract. Options for acquiring additional staff user licenses and the provision of unlimited OPAC licenses for library and remote-access patrons contribute to the expansion capability of the system.

Support of the Vendor

In selecting a new system, the support of the vendor is critical to the success of the system. Especially important is the role of the vendor in the installation of and training for the new system. Equally important, however, is the long-term support for the system. Active research and development program, regular upgrades of the system and responsiveness of the vendor to libraries' inquiries are the areas to be looked into for the long and more stable operation of the new system.

Networking Capability

Of major importance in library automation is the ability to connect to all kinds of networks: campus, regional, and the high-speed networks. A new system that adheres to standard telecommunication protocols will have more flexibility and connectivity. The ability to query different systems and databases using a common protocol is essential to the ease of access.

Flexibility of the System

The more flexibility the new system has, the more it will be able to adapt to the changing environment. Systems that can operate on multiple platforms are becoming a very attractive alternative. The new system should have operating system for library applications that can run on a wide variety of hardware and can handle several operations.

Production of Management and Statistical Reports

It is very important to the library manager that the new system can generate reliable and extensive reports. The library administrator can make better decisions if more information can be made available on the use of the system. It is essential that the new system can provide relevant data in easy-to-read and comprehensive reports.

Stability of the Vendor

The viability and the performance track record of the vendor are probably the most important to the success of a new system. The willingness of the vendor to supply information on the number of employees, size of the research and development division, the number of installations, number of recent sales, in addition to current financial data can help determine the viability of the vendor. Research and experts' reports, the experience of users of the system, and responsiveness of the vendor to requests for proposals can make a better decision when selecting a new system.

Selection Process for a New System

Exploration for System's Suitability and Viability

The search for a possible replacement of the T-Series system began at the beginning of school year 2001-2002 when the more popular integrated library systems currently installed in academic libraries in the country were investigated. These systems include Athena, Follett, Maelisa and the Library Solution. Direct access to these systems' online catalogs, comments from users, system administrators and vendors, and review of the vendors' promotional materials helped in identifying the capabilities and limitations of each system. Other systems that are frequently appearing among the big institutions web sites in the Asia – Pacific region like Horizons, Millennium, and Voyager, were also explored. One interesting discovery in exploring the Internet for web sites that would firm up the selection of a new system was the University of Botswana Library web page. DLSU Library found a match with the University of Botswana Library of South Africa in terms of collection size, enrollment size and their experience in using the T-Series and CDS-ISIS information systems. Immediate exchange of communication between DLSU and UB libraries was made to find out the status and performance of the new system that UBL installed as their T-Series replacement. The system administrator of University of Botswana Library in his e-mail reply was very pleased with the smooth migration to their new system

Library systems product presentation and demonstration by different vendors were undertaken. Representatives from the different sections of the DLSU Library and the Information Technology Center (ITC) observed the demonstrations and provided valuable inputs in the selection process. Request for project proposals and corresponding price quotations was sent to vendors of library systems with potentials to be chosen in the preliminary selection phase. Three vendors, The Library Associates (TLA), The Library Corporation (TLC) and Innovative Interfaces, Inc (III) sent their sales persons for the demonstration of their respective system. Personal visit to two academic and research libraries in Thailand using the Innovative library system were made by the Library Director in summer of 2002. This was then followed by an on-site observation of the Library Solution application at the National Library sometime in July 2002.

Project Approval

To conform to the institutional practice for procurement of materials, three options are required for proposal presentation. The three systems selected for consideration include, the Library Solution of the Library Corporation (TLC), Millennium of Innovative Interfaces Inc. (III) and Voyager of Endeavor Information Systems (EIS). In July 2002 the project proposal on the replacement of T-Series Integrated Library System was submitted to the Executive Vice-President through the AVP for Academic Services and VP for Academics and Research. The proposal compared the capabilities, hardware requirements, and costs of the three selected systems. The Millennium Library Information System was recommended favorably over the other two systems.

In September of 2002, the management approved the acquisition of the Millennium library system software. The vendor was immediately informed and was requested to prepare the contract. The University's legal counsel and the Director of ITC were consulted to review the conditions and the terms stated in the contract. Once all the terms

and schedules of the contract were ironed out and agreed upon by the vendor and the University, the contract was finally signed in December of the same year by the EVP of DLSU and the President and CEO of ITC.

System Implementation Project

Infrastructure Readiness for the New System

The new system necessitates the upgrade of existing servers and other peripheral computer facilities. With the technical guidance of the ITC, a new server, a compiler and external tape drive were acquired. Several computer units stationed in strategic work areas were replaced with more powerful ones that can accommodate the functionality of the new system. The infrastructure components required by the new system became ready by early June 2003.

Staff/Training workstations were set up to meet the detailed software and hardware requirements asked by the ITC Project Manager. The training area was prepared so it could provide on-site with hands-on access to the library's own database, using the products, profiling and parameters unique to DLSU Library.

Project Teams

The DLSU Library received a print copy of the signed contract on January 3, 2003. A week later the Implementation Services Department at Innovative Interfaces wrote the DLSU Library Director to introduce the process and the Implementation Services Project Team that would follow to put the Millennium system into operation. Mr. Santiago Raya led the Innovative implementation team and was responsible for overall project scheduling and tracking. Other team members and their corresponding roles and responsibilities were:

- PJ Marcelino, Technical Support Specialist --- hardware setup and site preparation.
- Farida Khosh, Implementation Consultant--- indexing, profiling and data.
- Demian Salgado, System Specialist--- software setup
- Luis Cosmes, Training Consultant--- on-site training and software functionality

On the DLSU side the Library Director served as the project team leader with, Avelino Dancalan, as the Project Coordinator and the System and Implementation Specialist, Melton Jo, Assistant for Training and Software Functionality, Irwin Jurilla and Ronald Warner of ITC as the Technical Support Specialists and Sam Mallare, ITC Director as the Technical Consultant.

A conference call between the two project leaders was held on February 5, 2003 to discuss further the details of the project. This initial communication led to the production of the Implementation Plan that details all tasks and responsibilities for the duration of the project. No on-site meeting was held since all communication between the DLSU Library/ITC project team and the Innovative project team was achieved satisfactorily by

e-mail and telephone. It was agreed by the two project team leaders that the target test run of the system would be in November, 2003 with its full operation in January 2004 in time for the opening of the third trimester.

The DLSU Millennium Library System Implementation Project formally kicked off on February 11, 2004.

Data Conversion

Data conversion specifications were determined, reviewed, and tested. Delivery of test data for conversion testing was done in four occasions that comments and changes were incorporated in the revision every after each test. The data conversion was finally approved only after the fourth data conversion test was revised and accepted by the Library.

Defining the database load table and indexing profiles was prepared by the DLSU Project team with the involvement of a small group of staff who examined the profiling decisions prior to the initial database load. Instructions and worksheets for this purpose were provided by Innovative via its website.

Training Program

Innovative follows a “cascade training approach”, where small group of key staff are trained by Innovative trainers and these trainees are then responsible to provide training to all other staff. The training program is designed to “train the trainer” thus the number of attending staff was limited to about ten for every module.

The TestPac which provides the converted bibliographic and item records was prepared in time for the training so that the library’s actual data can be used.

Below is the chronology of the DLSU Millennium Implementation Project:

2003	
February 11	DLSU Millennium Library System Project KICK-OFF. Santiago Raya, presented the rest of the Implementation team and the plan that includes the schedule of the project from preparation, installation and training.
February 14	Sample records from T-series were sent to III for analysis.
April 14	Sample records from T-series were mapped and tagged based on MARC21 by the III conversion team in the United Kingdom.
April 29	T-series records were converted and became accessible from an III remote server in UK for analysis, review, and revision by our Cataloger.
May 8	HP server was installed.
May - July	Profiling and analysis of bibliographic records were done
June 2	C Compiler installed.

June 4-5	The server setup and software installation were completed.
July 2-4	Initial on-site training session System administration; Circulation parameters and WebOpac
August 11	Full database was uploaded
August 13-14	Second on-site training session Cataloging Module
August 26	Back-up tape drive installed.
August 29	A software upgrade notice was received.
September 1-4	Self upgrade via FTP failed. III did the upgrade remotely.
September 5	Software was upgraded with Release 2002 Phase 3.
September 10-11	Third on-site training session Serials Module
September 25	Serials check-in records were uploaded.
September 26	Data migration went sign off. Total number of records is close to 200,000
October 7-10	Fourth on-site training session Acquisitions Module
October 16	Acquisitions went live.
October 16	Sample orders were sent to overseas jobbers with electronic systems
October 26	BISAC protocol for electronic ordering went live.
November 1	Cataloging module went live.
November 12-13	Fourth on-site training session Circulation Module
December 15	Millennium WebOPAC was launched.
December 17-18	Training of other library staff for Circulation Module was held.
2004	
January 6	Importing of patron data from Student Management Record database to Millennium system was done.
January 7	Circulation went live.

Conclusion

Presently, the primary concern of the DLSU Library is the full operation of the newly installed system covering the functionality of acquisition, cataloging, circulation, serials, report generation, and system management. Positive feedback from internal and external customers is encouraging. Faculty and students underwent minimal guidance in their access to the system's WebOpac. Fast access and ease of use are the popular reactions given by the users whether access is on-site or remote. On the other hand, the library staff and the system's administrators continuously adjust to the new system in their area of work and explore the other features of the various modules to maximize the services that the new system offers.

Open communication between and among the stakeholders encourages the exchange of observations and problems encountered in using the new system. Queries about anything

related to the system are immediately accommodated and acted upon. The Innovative helpdesk assists in this regard.

By and large the shift to the new system went smoothly and satisfactorily for the past three months. Improvements in the acquisition and cataloging processes, loan transactions, serial management and the overall delivery of services are evident. The prospect of expanding the services that will include the interfacing of the online access to e-journal subscriptions, the booking service for the Instructional Media Unit, and the integration of the remaining in-house indexes is scheduled at the early part of next school year. Request for funds for additional functionality of the new system was incorporated in the Library budget proposal submitted to the University administration last month.

The DLSU Library as a support service system to the University' mission in developing young professionals as Christian achievers for God and country, follows the dictum of continuously improving the processes for the attainment and sustenance of quality and excellent resources, delivery service systems, facilities, and community extension programs.

References

- Strategic development plans, 1993-2003. (n.d.) Manila: De La Salle University
- 10 year development plan, [2003-2013]. (n.d.) De La Salle University System.
- Integrated Library System Migration Study: Steering Committee Report & Recommendation. (1997, December 18). Retrieved March 05, 2004 at <http://library.nsuok/Ts/rfp/ioarfp.html>
- Tabbetts, Diane. (n.d.) Your next system: planning for migration. Retrieved March 05, 2004 at <http://web.simmons.edu/~chen/nit/NIT'92/335-teb.htm>
- <http://www.biblio-tech.com>
- <http://www.ilsr.com>
- <http://www.itcompany.com>
- <http://www.library.yale.edu/orbis2/implementation/orbis2.html>

Note: Paper presented in a conference, "Library Management in the 21st Century", held on March 29-30, 2004 at the Ateneo de Manila University Rizal Library, Loyola Heights, Quezon City.

