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### Building a case for the replacement of a legacy library management system

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<Chapter 32>

<b>Title:</b> Building a Case for the Replacement of a Legacy Library Management System
<b>Abstract:</b> This chapter presents the feasibility study conducted at SMU Libraries as part of an overall strategy aimed at engaging key stakeholders and getting their buy-in, right from the planning stage, for the migration and implementation of a library management system. The feasibility study was conducted over a period of eight months and involved representatives from various teams within the library as well as the university's IT department.
<b>Keywords:</b> library management systems, business case, stakeholders, stakeholder engagement, strategic, tactical, operational
<b>Project focus:</b> assessment methodologies, techniques, or practices; assessment concepts and/or management
<b>Results made or will make case for:</b> improvements in services, changes in library policy, proof of library impact and value, a strategic plan or process, how money or resources may be directed
<b>Data needed:</b> acquisition and collection policies, user experience
<b>Methodology:</b> quantitative, evaluation or survey
<b>Project duration:</b> between 6 months and a year
<b>Tool(s) utilized:</b> Microsoft Office tools such as Word and Excel
<b>Cost estimate:</b> > \$10,000
<b>Type of institution:</b> university—public
<b>Institution enrollment:</b> 5,000–15,000
<b>Highest level of education:</b> doctoral
<b>Page #:</b> ---

CHAPTER 32

## **Building a Case for the Replacement of a Legacy Library Management System**

*Shameem Nilofar*

### **Summary**

The educational and informational space, over the years, has been undergoing a number of changes forcing academic libraries to realign themselves in order to remain relevant to the learning, teaching, and research activities of their parent institutions. In this competitive environment, academic libraries are responding by providing services that demonstrate their value to their stakeholders. One key challenge lies in the area of keeping pace with patron expectations and meeting those needs using library technology systems by maximizing the potential of such systems.

Library management systems (LMSs) belong to the genre of technological products that enable the acquisition and management of a library's collection, which can include various formats. These systems support various procurement methods as well as provide metadata and circulation management tools that aid access to these materials. While the strength of the previous generations of LMSs, collectively known as integrated library systems (ILSs), has been in the management of print and physical resources, this has been inadequate in supporting library operations with an increasing growth of electronic resources in their collection profile. Electronic resources provide unique challenges but, at the same time, provide opportunities that enable the library to be a ubiquitous information service provider, unconstrained by the challenges of space and geography. However, changing to an LMS is not a task that most libraries would undertake lightly. In addition to the effort required for the technical migration as well as budgetary considerations, most libraries also organize themselves structurally along functional roles, more suited for libraries with a higher emphasis on print collections. As a result, a migration calls for a concerted effort in change management that affects people, processes, and workflows.

This case study describes the project undertaken by Singapore Management University (SMU) Libraries to build a business case with the main objective of engaging key stakeholders and getting their buy-in, right from the planning stage. The success of the project lay in building a business case that could be leveraged to procure a system that did not just meet the current operational needs of the library, but could build and expand on the emerging services in the academic sector.

### **Introduction**

To gain a better understanding of the context, it is important to understand the various factors at play in the library and educational landscape during the period 2011–2015.

### ***The Higher Education Landscape***

The New Media Consortium (NMC) *Horizon Report* is an annual joint report produced through the collaborative initiatives of the NMC and EDUCAUSE Learning Initiatives, focusing on the emerging technology trends that are likely to affect the educational sector around the globe. In its twelfth annual edition, *NMC Horizon Report: 2015 Higher Education Edition*, the authors highlight a key trend, which in the opinion of the expert panel will drive educational technology adoption over a period of three to five years. According to the authors, there has been an increasing focus on measuring learning, and one key element of this trend has been gathering richer learning analytics.<sup>1</sup> The main objective behind the data gathering has been to build suitable pedagogies that empower and prepare students for success, not just in their academic paths but also in their careers. The report highlights the case of Nottingham Trent University's (NTU) Student Dashboard, which facilitates timely intervention from the tutors by collecting data from online learning systems, library visits, card entries, and a multitude of other data sets to correlate and draw insights on student engagement.<sup>2</sup> Academic institutions have just begun to understand and harness the transformative impact of learning analytics.

In this competitive environment, academic institutions have begun to push for higher accountability in terms of budget and resource utilization, specifically in demonstrating the value it brings to the student academic experience.

### ***The Academic Libraries Landscape***

Libraries, positioned in this landscape, have seen an increasing demand for ubiquitous access, regardless of format or device. Marshall Breeding, in his *Smart Libraries Newsletter*, talks of "library service platforms" that "are designed for comprehensive management of print, electronic, and digital resources; offer a robust set of API's for interoperability and extensibility; and are web-based and use cloud computing. Academic Libraries have changed in a way that meeting their automation needs seems to require the radical departure represented by the more revolutionary approach of library services platforms."<sup>3</sup>

Breeding had first coined the term *library services platform* in his article "The Beginning of the End of the ILS in Academic Libraries," where he talks of the changing nature of academic library operations and its associated challenges. He goes on to say that

over the last decade or so, libraries in colleges, universities, and other research organizations have been at the forefront of a broad trend where electronic content has grown more and more dominant. Unfortunately, library automation systems have been slow to respond to this obvious and fundamental change. The essential model of the integrated library system, one comprised of functional modules such as cataloging, acquisitions, serials, circulation, and an online catalog, was conceived in the print era. It seems that now, the ILS has prevailed past the time when its functionality reflects the best way to organize a library's strategic activities.<sup>4</sup>

He continues to further elaborate the concept in his article "Library Services Platforms: A Maturing Genre of Products." Breeding contends that the evolving trends in publishing and content creation will always have an impact on the collection development strategies of libraries. With the proliferation of electronic resources, there is a need for new technological capabilities that can provide efficient management of these materials. Expanding on his 2011 vision, he defines their characteristics further,

as being able to

acquire and manage their collections, spanning multiple formats of content, including at a minimum physical materials and electronic content. These products support multiple procurement processes, including those related to items purchased for permanent ownership, those made available through paid licenses and subscriptions, and those selected from open-access sources. They offer a metadata management environment offering multiple schemas as appropriate for each of the respective material formats, including at a minimum the MARC family of metadata standards and Dublin Core.<sup>5</sup>

One major differentiating factor between the new library service platforms (LSPs) and the integrated library systems of the past was in the ability to support open extensible architecture that could extend the capabilities beyond the specific product. There was also a marked effort to provide a true SaaS solution, with key vendors offering multi-tenant cloud-based platforms, which translated into cost savings for enterprise IT operations that function in most academic library settings.

### ***The Library Technology Vendors Landscape***

In keeping with the evolving needs of higher educations and academic libraries, 2015 was also a year that experienced significant shifts among the major technology players in the library sector. These shifts represented strategic positioning by key players that looked to consolidating their position in a niche industry. The implication of these trends was that competitive options for academic libraries was greatly reduced. “Library Systems Report 2016” highlights this situation:

The transitions seen in 2015 were not lateral changes of ownership among investors but strategic acquisitions that concentrated power among a smaller number of much larger companies and reassembled product portfolios. Libraries may resist consolidation, but this could enable the development of technology products and services that are less fragmented and better able to support libraries as they provide access to increasingly complex collections.<sup>6</sup>

This consolidation of services within a few key players in the industry has a number of implications for the library sector and in the context of this case study, especially for academic libraries. While consolidation offers the benefits of targeted development from resource-rich vendors, it decreases the choice and the flexibility that libraries used to enjoy in terms of deploying products from various vendors to meet their service needs. This was especially the case for a significant majority of academic libraries, which were moving away from being primarily print-focused in their collection portfolio. Integrated library systems were built for the efficient management of print resources and did that job remarkably well during a period when client-server architecture prevailed. However, as academic libraries began to realize the shortcomings of the various ILSs, technology vendors started a concerted push in the development of library management systems that could more effectively address the shortcomings.

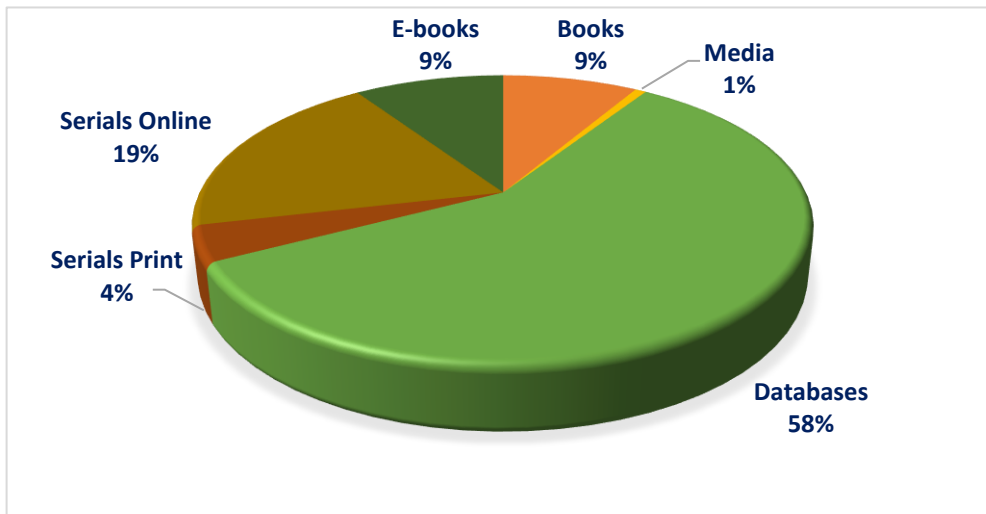
## **Background and Content**

Singapore Management University (SMU) was established in 2000 and is comprised of six schools: the School of Accountancy, the Lee Kong Chian School of Business, the School of Economics, the School of Information Systems, the School of Law, and the School of Social Sciences.

It offers bachelor's, master's, and PhD programs across the above disciplines as well as in interdisciplinary combinations. It has a student population of about 10,000 comprised of undergraduate, postgraduate, executive, professional, full-time, and part-time students.

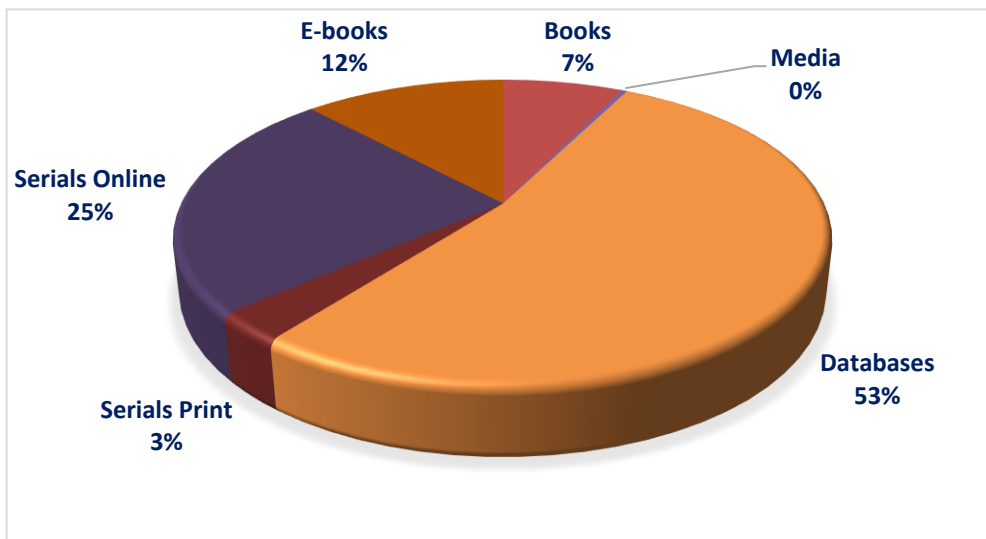
SMU Libraries provides its services through two distinct physical campuses—Li Ka Shing Library, which was opened in 2006, and Kwa Geok Choo Law Library, which was opened in 2017.<sup>7</sup> Since its inception, the core guiding principles that drive SMU Libraries' strategy have been (1) increasing faculty productivity, and (2) enhancing student learning and student experience. In line with these guiding principles and the university's strategic goals, the strategic plan of SMU Libraries for 2013–2015 highlighted five key strategic goals that would guide the development initiatives of the library over the next three-year period. One of the major goals for this period was to “enhance customers' experience and engagement by providing high quality resources, facilities and customer focused services that support multi-disciplinary research and holistic education.”<sup>8</sup>

From 2007, SMU Libraries has been using Millennium, an ILS from Innovative Interfaces Inc. (III). As mentioned before, ILSs gained popularity during the era of print-based collections. However, SMU Libraries had begun to diversify its collection portfolio to incorporate a variety of electronic and digital resources and move toward an electronic-first policy in its acquisition strategy. Newer models of acquisition that were based on a “just-in-time” model displayed a marked shift in strategy from the “just-in-case” model that was the more common acquisition model adopted by academic libraries. Patron-driven print and electronic acquisition models were gaining popularity as a major acquisition method. Figures 32.1, 32.2, and 32.3 represent the collection expenditures vis-à-vis material type as a percentage of the total collection budget for the years 2013, 2014, and 2015. To circumvent the limitation imposed by the ILS, SMU Libraries used a variety of ancillary products and workarounds to manage the divergent portfolio of resources, which held a higher percentage of electronic resources. The downside to this approach was that it resulted in a number of complicated processes and unsatisfactory user discovery experience.



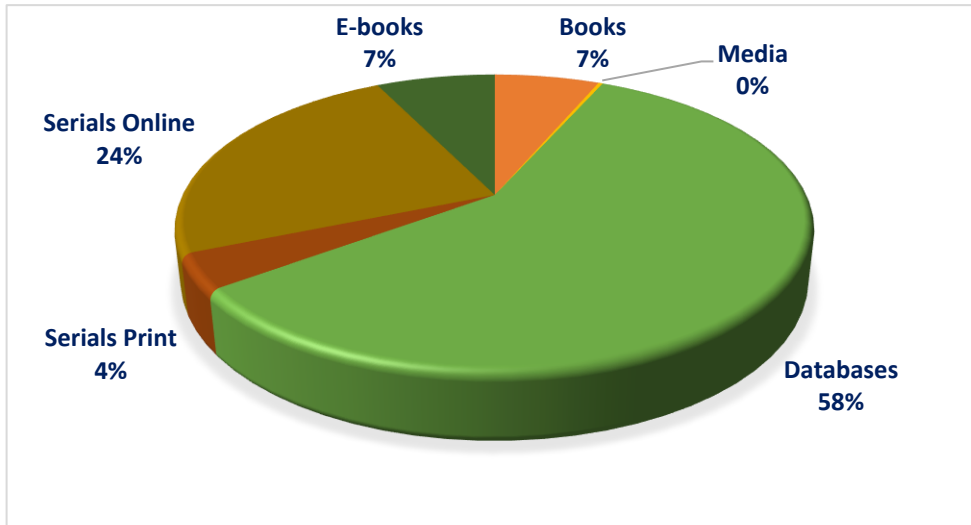
**Figure 32.1**

FY13 collection expenditure as a percentage of the total collection budget.



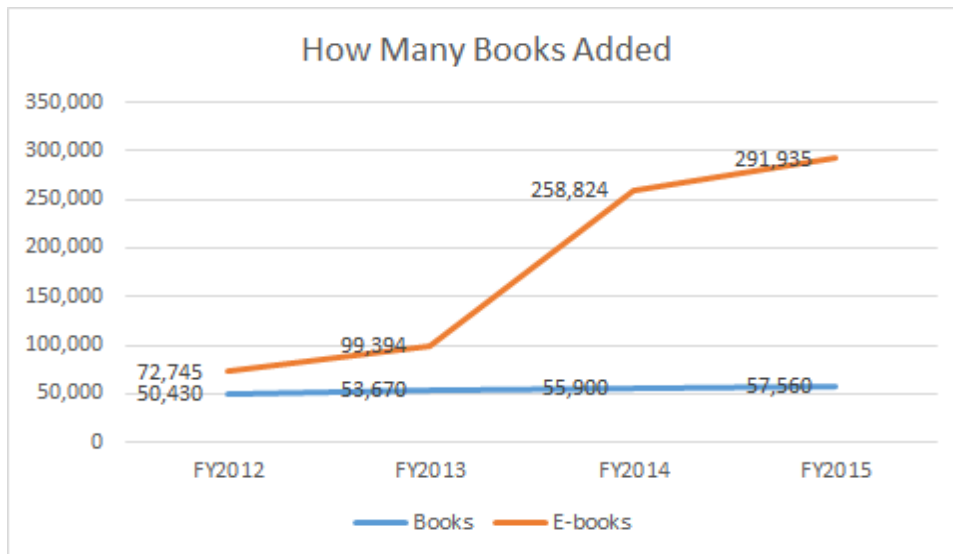
**Figure 32.2**

FY14 collection expenditure as a percentage of the total collection budget.



**Figure 32.3**

FY15 collection expenditure as a percentage of the total collection budget.



**Figure 32.4**

Comparison of physical to e-books added to collection.

Figure 32.4 provides a snapshot of the rate of growth for both physical and electronic books added to the collection from the period 2012–2015. During this period, ILS vendors had begun a robust development push for systems they termed “next-gen library systems,” which would address the



shortfalls of the previous generation of ILSs. According to Marshall Breeding, implementations of such systems by academic libraries had begun as early as December 2010. By the end of 2014, close to 1000 libraries in North America, which was used as the user base for his study, had moved to the newer library management systems.<sup>9</sup>

At the same time, Innovative Interfaces (III—the parent company of Millennium) had recently announced the launch of Sierra, which it claims is a unified library services platform to overcome the limitations of the current Millennium system. A number of libraries currently on Millennium were facing the same situation as SMU Libraries in terms of deciding the future of their LMS. With III actively promoting Sierra as the next-generation LMS and as a replacement for Millennium, the long-term availability and viability of Millennium were becoming highly uncertain. III has also announced that new enhancements or features will be primarily made available only on the Sierra platform. New requests for Millennium enhancements would be carried out only if the current architecture of Millennium supports it; otherwise the enhancements would be available only in Sierra.

As a result of these changes in Millennium along with changing landscape of LMSs, the university librarian charged the Library Technology and Innovation (LTI) team with doing a health check of Millennium as well as evaluating the technological landscape of newly available next-generation LMSs to find the best fit for the library. The team was comprised of key members from the library's Information Access and Resources (IAR) team, which handles the acquisition, metadata, and circulation operations of the library. In addition, the team also included representatives from the library's Information Services team to provide the user perspective on content discovery. The team decided that the best way to address the various charges was by conducting a feasibility study.

The goals of the feasibility study were established based on three fundamental principles, which would provide the framework of the study. They were

- Ensure the involvement of all relevant stakeholders right from the planning stage.
- Ensure that the desired features of the new system are grounded in the current and emerging needs of the user community. The requirements will need to demonstrate how they will impact the university's strategic goals.
- Ensure that communication and outreach efforts are built into all aspects of the feasibility study.

The primary purpose of the feasibility study was to establish stakeholder buy-in by demonstrating the business and financial benefits of such an effort, which could then be leveraged to procure resources and a support commitment from the university.

To get a better understanding of the intrinsic factors, the major goals of the feasibility study were identified as follows:

1. To review the current system and determine if the technology available provides the functionality needed for performing the current job scope efficiently.
2. To document what could be done better, if either the data or the automation exists.
3. To understand the gaps between the current system and the required and desired capabilities.
4. To review possible alternatives to the current system and do an analysis of the various options.

5. To evaluate and recommend an appropriate solution that supports the functional needs of the library.
6. To evaluate the possible implications of a change in LMS for other related systems, such as the discovery interface and institutional repository.

Underlying each of these goals was the need to understand and establish the direct impact and role that the library plays in supporting the university's teaching, learning, and research needs. Based on the above, the team was tasked with recommending a way forward for the library in terms of an LMS. The team had three options:

1. stay with the current Millennium system;
2. upgrade to a Sierra (the next generation of Millennium); or
3. upgrade to a new system.

In terms of upgrading to a new system, the preference was to migrate from Millennium to Sierra, as this would involve less disruption to library operations in terms of data migration and the learning curve for library staff.

## **Findings and Methodology**

The project was split into two major phases. In the first phase, the team looked at the current system and identified the gaps that existed in the current workflows. The team evaluated the sustainability of maintaining the current processes against the increasing demands of information needs as well as the cost-effectiveness of deploying third-party solutions to bridge the gaps. The various gaps were gathered and consolidated; a sample of the documentation is shown in table 32.1.

**Table 32.1**

Sample of Gap Analysis Collected for Electronic Resources Management

Deliverable	Process	Manual Intervention	Staff frustration	Comments	Criticality
Provide a listing of the subscribed E-resources (Database, Ebooks, Ejournal, etc) in Library's website.	For database, staff creates a ERM record with fields (Resource title, description, subj, URL, etc)	Not automated.	--	Limited display option in the user's site. System can have the options to include the following: Search widgets, Image/video display, integration with social media components.	Good to have
	For ejournal, staff updates and maintain a separate 3rd party web service (In our case, Ebsco A-Z). Staff receives monthly marc records from Ebsco, to be uploaded to Mill for ejournal records to be discoverable in a classic catalogue / EDS search.	Can be automated with closer integration.	The need to maintain a separate database.	-Integration with a data service provider to harvest meta records of subscribed contents. - The same dataset to serve as a single source of meta records to facilitate various library web services, like EDS/OPAC/A-Z list/Links Resolver.	Mandatory
	For ebooks, libraries can opt to manage a similar A-Z list.	Not automated.	1. The need to maintain a separate database. 2. There is no option in Ebsco A-Z to maintain a separate A-Z page, one specially for ebooks.	Same as above	Mandatory
	Staff would need to create a list of our print holdings to update in Ebsco's A-Z. This is to allow A-Z to be THE single list of journals, including print.	Can be automated with closer integration.	Manual intervention	Again, closer integration between A-Z list and our Mill data.	Mandatory

Deliverable	Process	Manual Intervention	Staff frustration	Comments	Criticality
	To enable off-campus access, staff needs to request for URL to be added to OCLC's ezproxy. The same goes whenever there is a change in URL's domain.	Can be automated with closer integration.	Manual intervention required out of Mill.	-Closer integration with OCLC ezproxy. -Option in LMS to update ezproxy automatically.	Mandatory
	Users may access the page (and subsequently the respective database pages) on their mobile devices.	Nil	1. Page is not optimised for viewing on a mobile device. (See screenshot on the right) 2. Databases that have a mobile-friendly platform (Eg Access via App) cannot be flagged out so that users will get to see this mode of access (or instructions related to access) if and only if they are accessing the page on a mobile device.	Nil	Mandatory
Update Coverage Load File	1. Export coverage file from A-Z, in csv format. 2. Re-arrange fields/sequence of fields in the file to match ERM's requirement 3. Upload file in ERM	It is already automated, via ( <a href="http://libapp/app/coverage_load/">http://libapp/app/coverage_load/</a> ).	Manual intervention required out of Mill.	1. LMS to have the capability to be configurable for it to accept a file of a set of customed field. 2. Closer integration with A-Z	Mandatory
Manage access to resources that require login credentials	Staff creates a separate bib record (b10477779) in Media Management to manage and maintain the list of such titles. Users can view passwords via OPAC after login to their accounts.	Not automated.	1. Need to retrieve and update a different record. 2. Files in Media Management are stored in separate HTML files for each resource.	Option can be provided within the same ERM record to manage such cases.	Mandatory
Archival of License agreement	For each signed license, staff can create a license record attached to the ERM record, to record and keep track of selected licensing terms, eg. Permission for ILL/Course pack inclusion, etc	Not automated.	No option available to allow staff to save a digital copy of the agreement. It could be possible via Media Management (See item 3 above) but again the record will be separated.	Option to be able to save a digital copy. It can then serve as a single repository for all signed licenses.	Mandatory
Retrieval of Usage statistics	Mill to retrieve COUNTER reports via SUSHI from respective content providers.	Yes (Partially)	1. Mill ERM can only retrieve JR1 reports. 2. For non-counter report, there is no mean to update and store usage reports.	1. Should have options to retrieve other counter reports 2. It can serve as a single repository for all usage reports.	Mandatory
	Usage log for ezproxy access is not captured as an integral of the publisher-generated reports .	Not automated.	There is no single source of usage data for each electronic resource.		Mandatory

Deliverable	Process	Manual Intervention	Staff frustration	Comments	Criticality
Manage a list of vendor's contact records	For any change in contact, say account manager, staff will update the contact record.	Not automated.	In some cases, update needs to be done in both contact and vendor records.	Provide an option to integrate both records to reduce duplication work.	Good to have
Manage the "life-cycle" of a subscription - from trial to activating/providing access	Staff would create an ERM record to display details relating to the trial access (eg URL, trial period, coverage, etc).	Not automated.	There is no means to collate feedback from users via Millennium. Users can either send their comments in a survey form (surveymonkey) or via email.	To reduce administrative work, the system should be able to collate feedback (at least in a free-text format) and archive for future reference. Such information will be especially useful during the renewal period.	Mandatory
Annual renewal of electronic resources	Staff would often need to compute and compare the % increase of the annual subscription rates	Not automated.	Computation has to be done manually.	System to have an built-in functionality to compute and record this value. Past data can be displayed against the payment details for future reference.	Good to have
	Staff may need to check and monitor fund status of electronic resources.	Nil	Within Mill ERM module, there is no access to view fund status/utilisation. It can only be accessed via Mill Acq module.	System should be configurable to meet each library's requirements.	Mandatory
Management report to list the following information: Number of database/E-journal titles/E-book titles/Cost per use by database/journal, Number of titles pending renewal/Number of new e-journals added by month/year, etc	Staff would need to maintain the statistics offline in a worksheet, or create list as and when the data is required.	Not automated.	1. No single dynamic source of information that can be generated automatically. 2. Manual computation may lead to mistakes and often it is because the criteria are not clearly defined. Eg. How do we count titles purchased as a bundle, how about free resources?	LMS can provide a "dashboard" view of the collection statistics and simple computation based on payment/usage/coverage data.	Mandatory
Access to help files or manuals.	Staff needs to login to a webpage and search for the relevant contents.	Not automated.	1. There is no context-sensitive help. 2. Difficult to search/browse. 3. The java-based page does not work on all browsers (Eg. Chrome).	Besides context-sensitive help, there can be links to video tutorials.	Mandatory

By the conclusion of the gap analysis, the team was able to identify the major areas of concern that were not being met by the current system due to the lack of either data or functionality and would need to be addressed in order for the library to support the strategic goals established earlier. These concerns could be grouped into two separate areas that would then form the basis of the requirements for a new library management system. The two broad areas were functional and technical, under which most of the gaps could be addressed.

1. **Discovery.** A unified and seamless discovery experience for our students, faculty, and staff to support teaching, learning, and research. The service should support a single Google-like search experience without being handicapped by the various resource silos. Support user research needs by searching through resource silos, facilitating access, integrating search results, and presenting them to the user through a feature-rich search interface. In 2012, the library decommissioned the discovery layer of Millennium as it was not very intuitive and created search silos. The library has a huge collection of materials, and without the presence of an effective and user-friendly discovery layer, most of them remain undiscoverable and inaccessible. To rectify the situation, the library implemented a temporary solution, EDS from EBSCOhost, to enable better discovery and meet the search needs of the community. However, this was a short-gap measure and was not able to meet and tailor the discoverability to the varying degrees of research needs, from the undergraduate students to the postgraduate research community. This also affects the return of investment (ROI) for electronic resources. By being undiscoverable, the usage benefits could not be realized.
2. **Unified Workflows.** A unified workflow brings together traditional LMS functions such as acquisitions, cataloging, serials, circulation, electronic resources management, link resolvers, discovery layers, and analytics into an integrated services platform. The entire purpose of unifying the workflows is to provide library patrons with access to library materials in all formats available in the most efficient and quickest way possible.
3. **Configurable Workflows.** Eliminates the “silo” functional module-based design of current LMSs and uses configurable workflows based on user roles. This increases productivity by streamlining the process and gives greater flexibility in reallocating staff to perform more value-added services and customer-focused tasks. The current architecture of Millennium was based on a modular design. Each module is based on a specific function, such as acquisition, cataloging, circulation, interlibrary loans, serials, system administration, and so on. For a medium-size library such as SMU Libraries, where multiple roles could possibly be handled by a single staff member, this design creates unsustainable workflows that cannot be streamlined. As a result, it also has a huge impact on the staffing models to support the library operations.
4. **Seamless Integration in the Management of Electronic and Print Resources.** For

SMU Libraries, electronic resources management (ERM), which is used to manage the library's electronic purchases and subscriptions, is an add-on module to a system that was primarily built to handle print and digital collections. As a result, functions such as retrieval of usage statistics, management of vendor contracts, management of the life cycle of subscriptions, annual renewal of electronic resources, and management reporting are handled either manually or through clunky workarounds using multiple sources of information. Quite often manual computation can make the process prone to errors.

5. **Cloud Computing.** The benefits of cloud computing can be harvested by eliminating a substantial amount of hardware and maintenance investments for libraries. The system shall provide an easily managed solution with low administrative overhead and a high degree of scalability. The capital expenditure becomes greatly reduced with this approach. Harnessing the capabilities of cloud-based systems reduces the dependence on client-server architecture. By being a true cloud-based SaaS environment, the library could reduce the total cost of ownership (TCO) and increase the ROI by allowing the library to redirect IT resources to other tasks.
6. **Operational Dashboard.** Able to provide real-time statistics that help to achieve better decision-making and ensure fiscal responsibility through the use of in-depth analytics. For example, in the case of acquisitions, it would enable the library to make informed acquisitions and renewal decisions based on actual usage and cost. Usage data can also be linked to purchase orders to provide cost-per-use calculations for packages and titles. In the current system, the built-in dashboard is able to provide a very minimal set of operational indices, with any additional information requiring the purchase of a separate component. Considering the crucial role of assessment and learning analytics in the education sector, it was vital to understand how, when, why, and what resources were being used.
7. **Open Platform.** Provides the library IT team access to the integrations, APIs, and documentation needed in order to leverage the system and extend tailored and customized services to the SMU community. The closed architecture of Millennium does not make it easy to extend capabilities to maximize the potential of the system. For example, APIs that could be leveraged to mine data and feed to other external systems for control or update operations or reporting purposes could not be utilized, thereby limiting the potential of the system. This capability is especially useful when the library could leverage on internal university IT expertise to develop added functionalities instead of relying on third-party products.
8. **Leveraging Community Zones.** Provides the ability to tap into global knowledge bases through community zones for metadata management. This reduces the work needed to manage the cataloging of the library's collections. This again translates into getting materials available as soon as possible to the SMU community.

9. **Budget Optimization.** Provides tools to optimize budget spending through overlap analysis of electronic and print collections. This helps to allocate library resources and budget in a more responsible and accountable manner. The system shall identify duplicate titles provided by different vendors as well as those that are available in both print and electronic formats, thereby ensuring a fiscally responsible collection management.

After a thorough review, the team recommended the replacement of Millennium with a new system. In the second phase of the project, the team decided to call the vendors listed below for a demo of their products based on use case scenarios specifically designed to address the various gaps that existed in the current system. By doing a detailed feasibility study beforehand, the team was well prepared to assess each system based on the institutional needs, rather than being swayed by marketing and sales tactics or being overwhelmed by the plethora of choices available. The detailed scenarios are attached in the appendix for further reference.

- The vendors were invited to provide a written explanation of how their products meet the various criteria.
- Based on how well the responses addressed the concerns, the vendors were invited to provide a demo.
- Vendors were also invited for follow-up demos in cases where certain issues were not clear.
- Vendors invited:
  - Sierra by Innovative Interfaces Incorporated
  - Alma by ExLibris
  - Intota by Serial solutions
  - Symphony by Sirsi Dynix

After the completion of phases one and two of the project, feedback was collected from all team members on the strengths and weaknesses of the various products. The team unanimously agreed on the direction forward and submitted its recommendation to the university's Library Planning Team, which is comprised of the senior management of the library.

## **Communicating Results and Impact**

Communicating the results of the feasibility study was critical to achieving the objective of the study. The study and the recommendations arising from it were used to get buy-in from the various stakeholders on three levels: (1) the strategic level, (2) the tactical level, and (3) the operational level.

### ***Strategic Level***

The library plays an important role in the student and faculty experience by enabling them to



discover relevant information resources in an efficient and effective manner to enhance teaching, learning, and research. By streamlining the processes by which the various materials are made available and reducing the overall time that materials spend in the library pipeline from order to shelf, the materials are made discoverable regardless of type and format in the most efficient way possible. The library used this opportunity to highlight the value that it brings to the university and to ensure that the library remains relevant to its stakeholder community. Put simply, the library used this study to demonstrate the value the university could derive by investing in the acquisition of a new LMS.

Briefing sessions were organized with the Library Advisory Committee, which is comprised of senior faculty from the various schools and library representatives, to highlight the benefits that could be derived from an LMS. Key benefits such as the unified discovery service as well as the ability to collect critical learning metrics were tied back to the strategic goal of the university to underscore the importance of the acquisition.

### ***Tactical Level***

It is also important to consider communication from a tactical level. More precisely, what kind of support will be needed from other departments within the university to ensure that the strategic goals can be met? In the context of this particular case study, sharing results was with the objective of getting the commitment for the IT resources and funding required to carry out the actual implementation. The university conducts an annual project prioritization exercise, where the various departments and schools submit project proposals for the following year. The projects are ranked based on the value to the university, cost savings obtained versus cost of implementation, and productivity gained. The implementation costs as well as the cost savings from reduction in manpower support and infrastructure projected on a five-year basis was presented in the project proposal. Based on the overall ranking, the project was identified as Tier 1 project and approved for budgeting and implementation. By using the results of the feasibility study, the library was able to clearly demonstrate the value that can be derived through the implementation.

### ***Operational Level***

Another key aspect of undertaking such an effort, which is either mostly ignored or handled with very minimal planning, is the change management that such an undertaking would involve. Having critical library staff involved in the study right from the planning stage and having the staff take the lead in identifying inefficiencies and the best way to address the gaps laid the groundwork required for managing the changes to the people, processes, and workflows that would follow from the migration effort. Library staff are key stakeholders in the entire process, and it is vital that their support be obtained to ensure the success of the project.

## Reflection

For SMU Libraries, going through the process of conducting a feasibility study inculcated a systematic way of thinking about emerging trends and technologies in the education and library sector. This was a project that involved almost 80 percent of the total staff strength and spanned a period of eight months. While going through the exercise of conducting a feasibility study was resource-intensive, there were definite benefits gained by investing in the effort required to carry out the study:

1. A thoroughly conducted feasibility study provides the solid foundation on which the actual requirement gathering and the implementation work can be carried out when approval for the project is obtained.
2. The study also helped library staff to understand the purpose of SMU Libraries against a broader context of the strategic vision of the university. By being able to directly link the foals of the university with the library's objectives, staff were able to gain a better appreciation of how the library contributes to the success of the university.
3. The study also drove home the importance of stakeholder engagement and the need to have a robust communication plan that can help to manage the expectations of the various stakeholders.

## Notes

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