

## Using a Shared Leadership Model to Transition to a New ILS & Discovery Service: A Case Study

Doris J. Van Kampen-Breit, Darla Asher, Elizabeth Henry, and Brent Short

### Introduction

Structures within the library that empower and value each employee's contribution to the success of the library can foster a sense of purpose, competence, control and belonging, while furthering the mission and goals of the institution. Use of strategic planning, clear goal setting, and accountability for achieving goals can be either a liberating or lassitude-inducing experience for those involved. The key is communication, collaboration, and strong team work. Task-oriented teams with a shared model of leadership can be effective for large projects that cross departmental lines. Members of the team are expected to "mutually influence one another about what tasks are to be done, how tasks should be done, and the ways those tasks relate to each other."<sup>1</sup> Instead of a top-down hierarchy, the shared leadership model concept structures the team as an organic, malleable object; the leadership role is assumed based on skills and strengths for a particular aspect of the project or task, and is reallocated as needed. A shared leadership model is a "collective social process emerging through the interactions of multiple actors;"<sup>2</sup> focused on the process and end-goals, rather than on rigidly defined job descriptions.

The migration of an ILS is a complicated project with many potential pitfalls. Asking one person to lead the entire project is the most common method of Information Technology (IT) project management, but it downplays the inherit strength residing in the individuals who make up the team. A library director with a leadership style that encourages and supports individual's strengths to best use their skills in a collaborative environment can create a highly effective team. "[S]hared leadership is a management style that promotes collaboration and a high level of buy-in from IT project teams since it requires a significant amount of shared decision-making and responsibility for the project's successful outcome."<sup>3</sup> The migration of the library's bibliographic records from Voyager to a cloud-based platform was a large and complicated project. The new OCLC Worldcat ILS was not simply another migration to a new system. The new ILS was actually part of a bundled suite of products, called WorldShare Management Services (WMS) and the migration was a leap into the unknown.

Once known as "hosted services," the Application Service Provider (ASP) model is generating strong interest from ILS vendors, libraries and other organizations as a "cloud-based" solution. Libraries adopting cloud-based services are interested in the cost savings and convenience; an organization "need not worry about upgrading, backup, compatibility, and maintenance of servers."<sup>4</sup> The library can get out of the most-time consuming and costly parts of IT support while the hosting company can generate recurring revenue streams, using an economy of scale. "Vendors providing these services gain that revenue and incur significantly lower costs as they rely on infrastructure-as-a-service providers or their own large-scale data centers that deliver the computing resources needed per installation at much lower costs"<sup>5</sup>. Once a library has migrated, they are likely to stay as a customer for quite some time.

There are also perceived staffing benefits for libraries who switch to a cloud-based ILS. While the library may still need a systems librarian to interface and troubleshoot with the

cloud-based ILS as needed, the librarian's time and expertise can also be freed-up and re-directed to end-user needs, such as usability studies; integration of online resources into the ILS; and website design, or other job duties. However, getting everyone on board when they perceive their positions may be in flux or at risk can be difficult. A clear and open discussion about new roles and responsibilities, and buy-in from affected employees is critical. The Library Director and Technical Services Librarian were key players in this area, making an effort to involve employees in the re-writing of workflows and job descriptions, empowering the individuals affected to become partners in the change process, rather than passive recipients. This approach was taken throughout the project, with a majority of library employees involved at some point in the transition. Stakeholder engagement and support for the migration allowed for a smoother transition.

## Demographics

Saint Leo University is the oldest Catholic university in the state of Florida and one of the largest Catholic universities in the United States. The main campus has a traditional setting and a population of over 2,200 students. There are also 19 geographically diverse centers with students located in 50 states, 5 U.S. territories, and 71 countries. With a total enrollment of 16,275, Saint Leo University is a nationally recognized leader in higher education.<sup>6</sup>

## Driving Factors

There were four important considerations driving the decision to purchase a new ILS: 1) accommodating the information needs of *both* on-campus and off-campus students; 2) initial purchase price; 3) ongoing financial costs and 4) ongoing maintenance requirements.

The Daniel A. Cannon Memorial Library had used AquaBrowser since 2009, an overlay system with Ex-Libris's Voyager. It suited the needs of our patrons, faculty and staff at the time it was purchased. It was the next logical step for the library as the then- ILS interface provided results in a format that resembled shelf cards. By 2012 the Library Director, and many of the librarians wanted something fresh and modern that also provided robust search capabilities. The overlay provided the look, but with reduced search options. The Voyager ILS provided some better search capabilities but the search interface was considered to be outdated in appearance and upgrading to a newer version was cost-prohibitive.

The unique and geographically diverse population of constituents was one of the motivating factors in the decision to implement a cloud-based ILS. The team felt it was imperative to provide off-campus students with the same high quality resources as the students are able to access at the main university campus.<sup>7</sup> The University Campus student population is primarily housed on campus, with convenient access to the physical library. Center-based and online students are mostly adult learners with less time to spare and limited access to other academic libraries. Implementing a federated search and allowing the searching of other libraries in their geographic regions made perfect sense for such a widely spread student population.

The traditional library online public access catalog (OPAC) has been under intense scrutiny and increasing criticism in recent years. A separate stand-alone catalog which is not linked to all electronic library resources produces a silo effect and creates unwanted barriers between the searcher and the information. Search engines, overlays, and discovery services offer what many believe to be viable alternative competing solutions to the problem of locating the proverbial needle in the haystack, when one doesn't know which silo door to

open. “[F]aculty and students have come to expect a simplified, fast, all-inclusive, and principally online research experience that mirrors their use of Google and other search engines.”<sup>8</sup> Many users, including librarians, have indicated a preference for a federated search system if it can use natural language and faceted post-search refining. User preference for this type of searching is based in part on the efficiency of the search;<sup>9</sup> one can search multiple sources prior to logging in to any one source and can be directed to a database suited to the topic based on the keyword(s), thereby taking some of the guess work out of which database to select, a source of frustration for many users.<sup>10</sup> There are a number of discovery services and next generation ILS that lay claim to these capabilities but they may come with a substantial price tag and yearly maintenance fees. These factors can rule out the most robust of options, making the decision concerning which mid-range product to select difficult. However, for many libraries budget cutting is still the status quo. Costs of journals and other resources continue to outpace inflation. “Academic libraries have faced similar budget reductions, and those matters are complicated by the rising cost of resources.”<sup>11</sup> Library directors understand the limitations of already stretched library budgets. No matter how attractive the sales pitch may be at a conference for a product of any kind, the reality of the budget will dictate choices. There are also some open-source ILS options on the market if the library has the time, staffing and resources to support it. There are several less expensive search overlay systems that can be paired with linking services, such as AtoZ e-Journal Finder (EBSCO), or an OpenURL-compatible link resolver such as 360Link (ProQuest). Investigating each option can take some time and may not answer all questions. However, it pays to spend this time in order to make the most informed decision for an institution.

## Literature Review

In preparation for this article, a literature search was performed for articles discussing the implementation of a cloud-based, web-scale management service. While there were some applicable articles, there was not a great deal written from a practical perspective. Raymond Berard, writing in *Bibliothek Forschung Und Praxis*, talks broadly about cloud computing and specifically two vendors’ systems: Ex-Libris’s Alma and OCLC’s WorldShare.<sup>12</sup> Although written from a European perspective, both systems are available in the United States. Berard offers several key points for consideration when choosing a new system, which would be helpful to any library. Other pertinent articles described the transition/migration processes at three institutions, complete with challenges, failures, and successes. These institutions shared many elements with Saint Leo University: limited budget, oftentimes a limited amount of staff expertise and staff time with an enormous increase in numbers of and emphasis on eResources, plus a strong commitment to serving library patrons both on and off campus. They were all early adopters of WMS, which describes itself as “a complete set of library management applications and platform services built on an open, cloud-based platform.”<sup>13</sup>

Of particular interest was an article by Bryant and Ye (2012) which discussed Pepperdine University’s implementation of WMS. The authors outlined the difficulty of a multiple campus environment at Pepperdine, similar to the multiple center setting at Saint Leo University. “Pepperdine Libraries is a complex environment, with multiple branches, overseas locations, and a separate database for the School of Law Library.”<sup>14</sup> They had more print resources than Cannon Library but faced similar challenges and tasks to providing access. While the Cannon DanLibrary team never expected the migration to be a walk in the park, it found, like Robin Hartman at Hope International University, that “there was some turbulence in the transition.”<sup>15</sup>

## Project Team Composition

Members of the project team were asked to participate from Technical Services and Public Services based on their background, skill set, and current role within the library. Team members took responsibility for leading a portion of the migration as needed. The Saint Leo University (SLU) migration team included the Technical Services Librarian, Catalog Librarian, Faculty Development Librarian (formerly Systems Librarian—had implemented previous ILS), Online Resources Librarian, Library Technology Specialist, Library Director, and as needed, circulation staff, public services staff, and University Technology Services (UTS) staff.

The Technical Services Librarian was a logical choice, as the migration would greatly change staffing patterns and workflows. The Faculty Development Librarian was selected due to her depth of experience with the system as the former Systems Librarian; the Technical Support staff member was chosen as she had taken over some of the systems duties when the Faculty Development Librarian was reassigned to Faculty Development. The Catalog Librarian was also a logical choice for inclusion as she would be responsible for integrity of the catalog. The Online Resources Librarian was selected based on the need for the federated search, which would draw from online resource records. Members from Public Services were selected based on availability and interest in participation.

There was no written outline as to how the team would manage the project; it was an organic process based on an understanding of the project objectives and a keen sense of each member's expertise. The Library Director worked closely with the team, providing guidance, feedback, and perspective, meeting both with individuals and the group, and attending many of the virtual meetings as needed. While this model of leadership is not necessarily the "norm" for the daily running of the library, it worked well for this IT-based project. Why? The Library Director had the responsibility to ensure the project was a success, but he did not necessarily have the technical background; his trust in his team's abilities was what gave rise to this approach. "A critical point to emphasize is that shared decision-making, as an aspect of shared leadership, has particular relevance for IT projects since the project manager is seldom the expert but yet accountable for the outcomes of the project."<sup>16</sup> His trust in the team's abilities and work ethic were crucial to a successful outcome. Without that trust, the project might have taken longer or even have had barriers to its success.

Empowering members of the team by emphasizing the needs of the project for individuals' unique skills sets, and encouraging shared responsibility across public services and technical services increases communication and collaboration. Internal team leadership can be a shared effort, where each participant is recognized and included as part of the team for his or her expertise. Team members cede the leadership role to individual members of the team as needed in order to accomplish shared goals of the project. The lead role may change several times over the course of the project.

This shared model of leadership has been described in the literature as "a dynamic interactive influence process among individuals in groups, for which the objective is to lead one another to the achievement of group or organizational goals or both."<sup>17</sup> In this model, there is no "lead dog" in the team; each member assumes the lead role as needed, similar to a basketball team. The "ball" or project, is handed off from player to player as needed, with certain players being more central, or key, to the success of the project due to their knowledge and technical skills than others. However, each team player is vital to the overall success of the game, as they each in turn drive to the "basket."

There was a “Center,” who was the focal point of the offense; his job was to facilitate every player’s game, so that they could play effectively. That position was filled by the Director; he provided focus and direction, blocked any “shots” that might delay the project, and opened up communication with other vested parties on and off-campus, played defense as needed, and made sure the players had a shot at the “hoop”.

There was a “Point Guard,” whose job it was to coach from the floor and handle the ball in order to deliver it effectively to teammates; the “point guard” position was primarily filled by the Technical Services Librarian for most of the project, although there were times when the Library Director or the Faculty Development Librarian took over that role. The “point guard” was responsible for maintaining a clear understanding of where in the project the team was, and to work with the rest of the team to deal with any issues that arose for the team.

There was also a “Shooting Guard”, which was filled primarily by the Faculty Development Librarian and the Catalog Librarian, as they had the most in-depth knowledge of the system, the MARC records, possible cleanup issues, and they understood the intricacies of a successful migration. The “shooting guard” needed to be versatile enough to handle some of the point guard’s ball-handling duties, while also having more in-depth knowledge and understanding of the current system and needs of the project in order to “score.” This role was ceded to the Online Resources Librarian post-migration for implementation of the Knowledge Base.

The “Point Guard” needed to understand the technical aspects of the situation, and be able to advance the project by assisting the other “players”. The librarians who acted as “Point Guard” needed familiarity with the old system and to have taken enough training on the new system to be able to have insight as to how the data could be most effectively merged.

The leadership role for the project started with the Library Director recruiting members for the team and outlining the need for the project and the plan of action, then the Technical Services Librarian, in consultation with the Faculty Development Librarian, led the team during the planning phase and pre-implementation phase; the role of leader was then ceded to the Faculty Development Librarian who oversaw the migration of the data with the support and assistance of the Library Technology Specialist and University Technology Services. The Technical Services Librarian and the Online Resources Librarian then took the lead and developed and implemented weighted criteria for the federated search and implementation of the Knowledge Base, while the Catalog Librarian and Public Services librarians spot checked the migrated records. The Library Director attended team meetings, provided input and guidance, and was very supportive throughout the process.

## **Criteria Used**

The most pressing reasons the Library Director saw for making a transition to the cloud-based OCLC web management system was: 1) continued costs to the university and library of maintaining a library server infrastructure for as long as the library choose not to go with a cloud-based approach, 2) integrating an affordable discovery search capability as a way of searching across all resources, 3) replacing what was perceived to be an unfriendly user interface, 4) taking advantage of further early adopter savings OCLC offered to the library.

The team knew cost was going to be one of the primary factors in the quest for a new, next-generation ILS. Criteria used to winnow the list of contenders included:



- The system should be cloud-based.
- It had to include a federated search service/discovery service.
- It needed to have the potential to change with technology and the times.
- It had to reduce indirect costs incurred by the library.
- It needed to be user friendly.

Purchasing and maintaining servers and conducting upgrades was a large drain on resources and personnel. When there were hardware or software issues, it had become harder to get assistance from both the university based IT unit, and from the vendor. Year-to-year maintenance fees were escalating at a pace that was not sustainable. Upgrading with the current vendor and purchasing new servers or switching to their cloud based service was considered, but it was determined that the cost increases and yearly fees would outstrip the allocated budget in a short period of time. The Director was interested in investigating cloud-based services, which would have the potential for reducing direct and indirect costs to the library.

The team was motivated also by a desire to implement a federated search system or a discovery service. The library's online collections of eBooks and databases had increased dramatically in the previous ten years, the length of time the library had utilized its current ILS. It was believed the online collections would especially benefit online and center-based students, who did not have immediate access to the print collections in the same way as the campus-based students.

### **Planning and Implementation Process**

The library was part of a cohort group of libraries selected by OCLC. Cannon Memorial Library was the largest of the six and had the largest eResources collection. The implementation, migration, and training all took place online. The meetings were held from October 2012 through May 2013 and the systems went "live" the summer of 2013. Documentation and training (live and recorded) for each of the WMS modules was accomplished via webinars available in the User Support Center. The implementation depended heavily on each team member attending and participating in the planning sessions, familiarizing him- or her- self, with the new system by attending the live online trainings and viewing recorded trainings as well, and communicating their questions, concerns, and perspectives to all members of the team.

There was some concern amongst staff about how this new system would impact departmental workflows, job assignments, etc., and even some anxiety that their job as they knew might not exist post-migration. The Library Director and Technical Services Librarian worked to redefine and redesign work flow and processes for the acquisitions, cataloging, and serials functions of Technical Services. One job description was rewritten when the Acquisitions Assistant became the Technical Services Assistant with broader and more varied duties. No position was eliminated. The Catalog Librarian and the Technical Services Librarian needed to work closely together to examine each and every task performed because of the changes and improvements in technologies, and because of the steadily increasing shift in focus from print to electronic formats. The entire team looked at what exactly was needed to be accomplished and then evaluated who was needed to get each job done. They were able to take advantage of opportunities to streamline procedures, eliminate redundancies and update practices due to the transition of many technical services tasks now being shared with other technical services departments in other libraries within

the system. With the team already established, already communicating and collaborating together to make this migration happen, the ensuing workflow redesign had broad buy-in and support.

The migration was completed in six stages. The first stage, for which the Library Director was responsible, was the selection of an ILS for the migration, and announcement of a cohort. The second stage was the planning of the batchload of catalog records. This started with a data migration Questionnaire. The Technical Services Librarian was in charge of the planning stage for the migrations, answering the questionnaire and developing a scope statement with the assistance of the Catalog Librarian, Online Resources Librarian, and the Faculty Development Librarian. This part of the project took four months from pre-planning to batchload of records. The third stage was the patron batchload, which took four days and multiple reviews with the Circulation Supervisor and Technical Specialist before resolving all issues. The reviews were completed by the Faculty Development Librarian, Technical Services Librarian, and the Technical Support staff member, in consultation with UTS to determine how to address various issues. The fourth stage involved batchloading the actual bibliographic records. The main point of contact for the batchloads was the Faculty Development Librarian and the Technical Support staff person, who worked closely with UTS and Technical Services on obtaining the best (cleanest) possible data load. The fifth stage was the review and approval of the migrated records, post migration. This stage was managed by the Technical Services Librarian, in consultation with the Library Director and Public Services librarians.

If decisions needed to be made during the implementation process, the team members involved at that point in time with the project needed effective communication skills and enough standing with the other team members to be able to control the “tempo of the game.” For example, OCLC wanted to change a critical deadline for the project; asking the library to be flexible about uploading catalog records, as another library had needed to delay their migration. After some discussion and consultation with UTS, who would need to be able to assist with the portion of the migration, the team decided against moving the deadline, as it would have created a tighter deadline than what had been planned for, and certain team members were not going to be available during the proposed change in date. Communication was key; when the library discussed the change in deadlines with UTS, it was clear that there was insufficient time and there were too many people who needed to be involved that would not be available for the proposed change of date.

Dula and Ye (2012) noted they “needed to extract Voyager data and load it into WMS many times until the team satisfied that all the data the team wanted to keep was loaded in WMS correctly.”<sup>18</sup> It was not an option for Cannon Library to reload data several times. Whether it would have been encouraging or discouraging to know the level of complexity concerning data migration that other libraries experienced is hard to determine.

The sixth and final stage was the building of the Knowledge Base, which was initially developed by the Online Resources Librarian and the Technical Services Librarian. This was accomplished by finding and selecting databases the library subscribes to from a master list available in the Collection Manager within WorldShare. There was a fairly substantial learning curve involved with certain aspects; e.g., customizing files to upload into the Knowledge Base, and weighing of each of the resources. Balancing the weight of each resource is not as simple or intuitive as one would prefer. When one resource weight is increased, another resource must naturally decrease in importance or ranking. Some changes to the weighting after implementation were inevitable. The management of the Knowledge Base has evolved; it has now become a job function for both the Online Resources Librarian and the Catalog Librarian. Using a shared leadership model, these changes in workflow and responsibility happened progressively and organically.

Post migration, the team regrouped and discussed with the Library Director their concerns and perspectives. This was completed formally and informally, at coffee breaks, in the workroom, and at a staff meeting. Overall the team was pleased with the migration and implementation processes.

### What Changed for Library Patrons?

Saint Leo University students and other users can now search the library's information resources using a federated search of all print and most electronic resources. The new and, at times, overwhelming abundance of results that they now have is something they need to learn how to sift through. More granular search results are possible using the advanced search, and one can limit searching by specified formats as well. Users still have the option of searching just one resource if they prefer to do so. For example, if they have a preference for a particular database, or need a subject-specific resource, such as Westlaw they can still go directly to that resource.

The ability to perform a comprehensive search of diverse information resources, whether print or electronic, is helpful to most users, especially the novice or casual user, who may not be willing to invest much of their time to learn the quirks and capabilities of the search system. Simple keyword, author, or title searching, as well as the advanced search functions of the system and post search refinements can meet the needs of most of the students. However, each resource is ranked in the WMS Knowledge Base, causing some good resources to become potentially underutilized.

Discovery service changes user searching requirements. Students need better search skills and thus, more instruction on the use of targeted searching. "Discovery services, by sluicing content together, could deluge users with less appropriate sources."<sup>19</sup> Users frequently get massive results (much of it irrelevant) from numerous sources in multiple formats. They need to use more sophisticated search strategies and more targeted search language/terms. If a user simply inputs a string of words or a sentence, the results can be overwhelming. However, if an item is not available locally, it is easy to locate a copy in another library by using the "Worldwide Libraries" link to locate it. He or she can then request the item via Interlibrary Loan with a few simple clicks.

### What Changed for the Library?

The shared model of leadership used for the migration project fostered and enhanced a sense of community, and developed closer working relationships among the members of the team and between public services and technical services. Because of the new ILS, departments are less compartmentalized. Some employees now work in circulation and in technical services, and some technical services librarians now volunteer to take shifts at the reference desk.

Acquisitions, cataloging, circulation, and serials went from a private database to a public shared-use database. When an item is received, the record is immediately added to WMS, as part of the processing of the item. This was one of the most notable changes for Technical Services. At the end of the transition at Pepperdine, Dula and Ye (2012) indicated their technical services workflows also changed and simplified dramatically, and reduced system costs, allowing them to "manage information, not technology."<sup>20</sup> The same can be said for the transition to WMS at Saint Leo University.

Library Instruction was adjusted to the new search interface, and librarians were made aware of both the benefits and potential information overload of search results.



Students were coached on search strategies and post-search refinement techniques. Online tutorials and guides were updated to demonstrate the new catalog and discovery system.

## Conclusion

Like many an academic library team before, the implementation team found out that all the training in the world doesn't quite prepare one for the real thing. Effective and efficient sharing of knowledge, strategies, and resources by team members is fundamental to successful projects; especially when the team is ad hoc in nature, and reliant on the expertise and experience of the vendor. Dissemination of knowledge gained in professional journals and lessons learned from a system migration or other large, resource-intensive project can help library teams avoid common pitfalls and plan their project more effectively.

Change can be tough, and the transition caused uncertainty and even anxiety for some employees. The transition overall went well, and OCLC was very responsive to the library's feedback and concerns. Some things the team would probably wish for would include more testing based on our unique records after initial importation of records, a list of common problems, etc. It would have been helpful to have more support and fewer cooks in the kitchen when it came to contacts at OCLC. The team ended up with more positives (Table 1.) than negatives (Table 2.), and OCLC worked hard on the areas for which the team and other libraries had the biggest concerns.

**Table 1. Summary of positives outcomes**

Cost savings
Training is recorded and available 24/7; cohort/collaborative style training available long after the transition – valuable for new hires and cross-training and retraining
One home screen/login for ALL staff OCLC modules
Technical Services workflow and staffing demand streamlined, allowing for those staff members to be freed up for more challenging tasks
New A-Z list more robust – includes tabs for articles, eBooks, and eJournals
Can search other OCLC Worldcat library catalogs at the same time
OCLC has responsive support; problems are addressed

**Table 2. Summary of negatives outcomes**

Lack of authority control changes user searching requirements; searcher has to get it exactly right; this is not “Google.”
Search interface does have suggestions, but not spellcheck
Author search results are dependent on user input (e.g. APA format may not work)
Can’t create a purely local bibliographic record unique to your institutional needs
Some fields not yet searchable at this time. (TOC, etc.)
Vendor service is required in order to streamline linking e-collections
Cameras, laptops, ephemera records not searchable, except by barcode.

## Recommendations

The planning and implementation team did not do a literature review prior to either selecting or implementing the transition from our legacy Integrated Library System to a next-generation cloud computing library management system. In hind-sight, a literature review would have potentially assisted in determining which systems to review, and probable hiccups to anticipate. “Sharing project knowledge, experiences, problems and best practices often takes place at the completion stage of the project in processes such as post-project reviews or lessons learned, which precludes the opportunity to learn and reflect during the project lifecycle”.<sup>21</sup> The vendor could have provided a comprehensive list of common mistakes to avoid, or areas in which to expect problems, which the team determined post-project would have been helpful.

Finally, it would have been better if the library had been placed in a cohort with institutions similar in size and complexity. Several test migrations of small batchloads of data should have been conducted to determine what types of data might get lost in translation. “One of the best ways to avoid problems when going live is to do test migrations before implementation.”<sup>22</sup> The reference librarians would conduct more searches in the live catalog, looking for the quirks, outliers, and renegades; staff in technical services could have evaluated the test batches to provide feedback issues they encountered. This academic year, the library is investigating user experiences and levels of satisfaction with the OCLC WorldCat search experience, a project expected to be completed May, 2015.

Utilizing a shared leadership approach allowed for more flexibility within the team and played to the strengths of each team member. However, the team would have benefitted from a closer, more collaborative working relationship with the University’s Technology Support team. It would have been better to bring them in during the pre-planning phase.

**Doris J. Van Kampen-Breit** ([doris.vankampen@saintleo.edu](mailto:doris.vankampen@saintleo.edu)) is Faculty Development Librarian at Saint Leo University.

**Darla Asher** ([darla.asher@saintleo.edu](mailto:darla.asher@saintleo.edu)) is Online Resources Librarian at Saint Leo University.

**Elizabeth Henry** ([elizabeth.henry@saintleo.edu](mailto:elizabeth.henry@saintleo.edu)) is Technical Services Librarian at Saint Leo University.

**Brent Short** ([brent.short@saintleo.edu](mailto:brent.short@saintleo.edu)) is Director of Library Services at Saint Leo University.

**Published:** February 2016

---

<sup>1</sup> Zhu, Haiyi, Robert E. Kraut, and Aniket Kittur. 2013. "Effectiveness of Shared Leadership in Wikipedia." *Human Factors* 55, no. 6: 1021-1043. Academic Search Complete, EBSCOhost (accessed February 13, 2015).

<sup>2</sup> Pearce & Conger (2002) as cited in Zhu, Haiyi, Robert E. Kraut, and Aniket Kittur. 2013. "Effectiveness of Shared Leadership in Wikipedia." *Human Factors* 55, no. 6: 1021-1043. Academic Search Complete, EBSCOhost (accessed February 13, 2015).

<sup>3</sup> Stagnaro, C., & Piotrowski, C. (2014). Shared leadership: A critical component in IT project management. *Journal of Technology Research*, 5, 1-21. Retrieved from <http://search.proquest.com.ezproxy.saintleo.edu/docview/1564441066?accountid=4870>

<sup>4</sup> Bansode, S.Y. and Pujar, S.M. "Cloud Computing and Libraries." *Journal of Library and Information Technology*, 32, no.6 (November 2012): 506-512. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed February 4, 2015).

<sup>5</sup> Breeding, Marshall. "Automation Marketplace 2013: The Rush to Innovate" *Library Journal* (accessed February 4, 2015). <http://www.thedigitalshift.com/2013/04/ils/automation-marketplace-2013-the-rush-to-innovate/>

<sup>6</sup> Saint Leo University. *Facts and Figures, 2013-2014*. <http://www.saintleo.edu/uploads/resources/FactsFigures13-14/index.html>. (Accessed October, 2014)

<sup>7</sup> ibid

<sup>8</sup> Asher, Andrew D., Lynda M. Duke, and Suzanne Wilson. "Paths of Discovery: Comparing the Search Effectiveness of EBSCO Discovery Service, Summon, Google Scholar, and Conventional Library Resources." *College & Research Libraries* 74, no. 5 (September 2013): 464-488. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed October 14, 2014).

<sup>9</sup> Goergas, H. "Google vs. the Library: Student Preferences and Perceptions When Doing Research Using Google and a Federated Search Tool." *Portal: Libraries & the Academy*, 13, no.2 (2013), 165-185.

<sup>10</sup> Van Kampen-Breit, D. and Cooke, R. *Do Our Anxious Students Envision Excellence?* Poster Session, Florida Library Association Annual Conference. Orlando, FL. May, 2014.

---

<sup>11</sup> American Library Association. *Advocating in a Tough Economy* (Issue brief). (n.d.). from American Library Association the teambsite:  
<http://www.ala.org/advocacy/advleg/advocacyuniversity/toolkit/talkingpoints>. (Accessed October 4, 2014)

<sup>12</sup> Bérard, Raymond. "Next Generation Library Systems: New Opportunities and Threats." *Bibliothek Forschung Und Praxis* 37, no. 1 (April 2013): 52-58. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed October 14, 2014).

<sup>13</sup> OCLC. 2014. "WorldShare." <https://oclc.org/worldshare.en.html> (accessed October 17,2014).

<sup>14</sup> Bryant, Sally, and Grace Ye. 2012. "Implementing OCLC's WMS (The teamb-Scale Management Services) Circulation at Pepperdine University." *Journal of Access Services* 9, no. 1: 1-17. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost

<sup>15</sup> Hartman, Robin R. 2012. "Life in the Cloud: A WorldShare Management Services Case Study." *Journal of The teamb Librarianship* 6, no.3: 176-185. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed October 14, 2014).

<sup>16</sup> Stagnaro, C., & Piotrowski, C. (2014). Shared leadership: A critical component in IT project management. *Journal of Technology Research*, 5, 1-21. Retrieved from <http://search.proquest.com.ezproxy.saintleo.edu/docview/1564441066?accountid=4870>

<sup>17</sup> Pearce, Craig, Conger, Jay, "Shared Leadership: Reframing the Hows and Whys of Leadership." *Sage* (2003). As cited in: Hoch, Julia E., Morgeson, Frederick P. "Vertical and Shared Leadership Processes: Exploring Team Leadership Dynamics." *Academy of Management Annual Meeting Proceedings*, (2014). EBSCOhost (accessed January 27, 2015).

<sup>18</sup> Dula, Michael W., and Gan Ye. "Case Study: Pepperdine University Libraries' Migration to OCLC's WorldShare." *Journal of The teamb Librarianship* 6, no. 2 (April 2012): 125-132. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed October 14, 2014).

<sup>19</sup> Parry, Marc. "As Researchers Turn to Google, Libraries Navigate the Messy World of Discovery Tools." *Chronicle of Higher Education* 21 Apr. 2014. <<http://chronicle.com/article/As-Researchers-Turn-to-Google/146081/>> (Accessed April, 2014)

<sup>20</sup> Dula, Michael W., and Gan Ye. "Case Study: Pepperdine University Libraries' Migration to OCLC's WorldShare." *Journal of The teamb Librarianship* 6, no. 2 (April 2012): 125-132. *Library, Information Science & Technology Abstracts with Full Text*, EBSCOhost (accessed October 14, 2014).

<sup>21</sup> Ahmed, Ghosia, Ragsdell, Gillain, Olpher. "Knowledge Sharing in Project Teams: A Research Model Underpinned by Action Learning." *Proceedings of the International Conference on Intellectual Capital, Knowledge Management & Organizational Learning*, (January 1, 2014). EBSCOhost (accessed January 27, 2015).

<sup>22</sup> Singh, Vanda. "The Nuts and Bolts of Migration to Open Source ILS: Experiences and Recommendations from Librarians." *Libri: International Journal of Libraries & Information Services* 1 June, 2013. EBSCOhost (accessed January 25, 2015).