Chapter 12

Leading Change through User Experience

How End Users Are Changing the Library

Andrew See and Cynthia Childrey

Setting the Change Stage

Cline Library is centrally located on the Northern Arizona University (NAU) campus in Flagstaff, Arizona. The library has a staff of sixty-two, and an additional forty-six student staff. According to the Carnegie Classification of Institutions of Higher Education, NAU is classified as "R2: Doctoral Universities—Higher Research Activity." Founded in 1899 with twenty-three students, NAU is now a public university with over 30,000 undergraduate and graduate students who learn on campus and online, across the state and beyond. NAU has built a reputation for research and scientific discovery, and over 1,000 undergraduates present at the annual Undergraduate Research Symposium. From the beginning, NAU placed students at the center, and students are the driving force behind what Cline Library does.

Through a strategic planning process now underway, users and staff imagine the future for Cline Library as a people-focused experiential learning environment, which is dynamic, is proactive to user needs, and promotes both individual discovery and creative collaboration. The library's newly crafted mission and vision state

MISSION

We engage our users in the design of discovery, research and learning experiences that advance NAU's mission and strengthen our diverse community. Our expertise, collections, services and spaces elevate learning, scholarship, creativity and innovation in Arizona and beyond.



VISION

Cline Library is the dynamic center of intellectual inquiry for a highly engaged user community that pursues and advances world-class teaching, learning and research.

The shift that is placing the user experience at the very center of this collective vision began just three years ago.

To consider the impact of the implementation of Cline Library's user experience program to date, it is instructive to analyze the development of the program and its outcomes utilizing John Kotter's eight-stage process for creating major change.¹ Kotter's model is useful in that it encourages an analysis not only of the impact of the change, but also of the change process itself. The shift in the library's approach to creating and improving its virtual and physical spaces began with the acknowledgement that while the organization was committed to putting users first, there were many individual versions of what was best, and many of those were informed only very indirectly by the end users of the services themselves. In order for a change to take root, it needed to utilize a structured approach that could drive decision-making across departments and engender library's values and contributed a grassroots voice to service design that cuts through departmental silos.

I. Warm-up Phase

STAGE 1: ESTABLISHING A SENSE OF URGENCY

Several forces contributed to the establishment of a user experience program at Cline Library in late 2015. The library had recently eliminated a layer of its administrative structure, and there were both a need and a desire to transition some programs out of the Office of the Dean, including the library's website. There was also a desire to reduce departmental silos and give rise to decision-making that was more horizontal. Departments, all of which had some responsibility for direct user services, lacked strong pathways to communicate service and system issues to each other. Each department "owned" the services it provided, and feedback across departments was frequently anecdotal. Thus, departmental structures, as well as long-standing policies and processes, served as internally constructed barriers that prevented the library from looking holistically at the end users' experiences and their journeys through our virtual and physical environments.

Departments felt they were acting in the best interest of users, but the library was neither effectively evaluating the data it collected nor collecting the best data for decision-making. Nevertheless, the library was a campus leader in deploying new services and technology-enriched spaces in partnership with student and faculty stakeholders. The physical environment was changing for the better. Assessment of those efforts was spotty, however, and the library staff did not immediately know if they got it right. Meanwhile, NAU was experiencing enrollment growth and responding to a rapidly changing environment. It was time to break down the library's departmental silos and place more responsibility with frontline staff to encourage grassroots assessment and faster, more responsive action based on a deeper understanding of the experiences of all users. The library lacked a structure to improve and enhance its services in alignment with new spaces, and in a way that let user data and voices bring about iterative change in real time. The library had to become more adept at risk taking, moving forward in an uncertain environment.

STAGE 2: CREATING THE GUIDING COALITION

By early 2015, the library began recruiting for a Head of User Services to manage the department previously known as Access Services. By design, his or her responsibilities would extend beyond a single department to provide the leadership necessary to improve and enhance all user experiences. An excerpt from the position posting offers a glimpse of the User Experience (UX) Group, a new initiative empowering users to change the library:

Head, User Services

Cline Library at Northern Arizona University seeks a forward-thinking, collaborative, and innovative **Head**, **User Services**. Reporting to the Dean and University Librarian and as a member of the library leadership team, this department head will manage a high-profile customer service program facilitating access to collections, equipment, technology, spaces, and more. With a passion for user engagement and for the exploration and integration of new technologies, s/he will develop and employ an understanding of the library's users through services, spaces, and online environments that promote users' success.

The Head, User Services will work to connect services from across the library into a unified environment that meets or exceeds users' needs and expectations.

Collaborate with other library units to provide connected, clearly articulated user-centered services. Establish and chair a group with membership from across the library that is focused on providing and enhancing a positive user experience.

By August 2015 there was a new Head of User Services with skill in and a passion for user experience (UX). By September he drafted a charge for the library's first User Experience Group based on conversations with the dean. By November the Library Coordinating Council, the leadership team, approved this new cross-departmental group. Once the charge was approved, a call for membership went out to the library with the intent to select seven to ten members from across departments. With an immediate positive response rate, the inaugural roster was established quickly and constituted representation from nearly all departments. The guiding coalition, led by the Head of User Services, was formed and UX was launched.

FALL 2015 USER EXPERIENCE GROUP

- Head, User Services—Chair
- Library Supervisor, User Services
- Three Teaching, Learning, and Research Services librarians
- Two Content Access and Delivery Services librarians
- Digital Media Technologist from Content Access and Delivery Services
- Head, Library Technology Services
- Archivist from Special Collections and Archives
- Librarian, Coconino Community College

Since the formation of the group in fall 2015, the guiding coalition has evolved organically. During its inaugural year, members learned about user experience approaches by establishing personas and applying newly learned UX processes to its highest priority project, completing an analysis of the library's website. By the end of the year, some members were more intrigued and able to commit time than others, resulting in some attrition by the start of the second year.

After two years, the guiding coalition changed again. Next, two subgroups (UX-Web and UX-Spaces) formed with a total of eleven members. The Head of User Services (who chaired both groups) and the dean agreed on cochairs for each. The UX-Spaces group was tasked by the dean to learn more about how users saw the building in preparation for a possible library master planning process. Membership of the group can rotate on an annual basis to facilitate changes in the focus for UX or when individual workloads and interests fluctuate.

STAGE 3: DEVELOPING A VISION AND STRATEGY

When the UX group was established, staff sentiment was generally apathetic regarding rapid and iterative change and also dubious that such change could be met without considerable institutional barriers. This did not diminish library staff's inherent desire to see positive change. On the contrary, they felt a strong need to make user-centered changes but also felt that they were not empowered to do so. To address this, the group adopted tenets of the design thinking process that Luchs and colleagues defined in their book *Design Thinking: New Product Development Essentials from the PDMA*: to "quickly generate possible solutions, develop simple prototypes, and then iterate on these initial solutions—informed by significant external feedback—toward a final solution."² As a result, it was important to clearly define and appoint levels of authority, empowering the group to make change, experiment, and accept failure as a logical step in the design-thinking process, which Mootee noted in his book *Design Thinking for Strategic Innovation: What They Can't Teach You at Business or Design School:* "Design thinking is not an experiment; it empowers and encourages us to experiment."³

In creating a vision for the UX group, the Head of User Services and dean worked to establish a charge that included this vision statement:

The User Experience Working Group will work to ensure that library-wide services are discoverable, accessible, intuitive, automated, and ultimately user-driven.

The focus of the vision was broad enough for the group to move forward with individual initiatives, short-term easy wins that ultimately fed into the larger change initiative. Generating buy-in among committee members was not a challenge, and principles and ground rules were set to establish working parameters and assumptions. To develop strategies, the group approached the work by first understanding these questions:

Who are our users?

Gaining a better understanding of who our users are allows us to better design services that are both useful and accessible to them.

What are user-centered services?

Fundamentally, the answer to this question is that the end-user is at the root of all decisions when it comes to service design. Is the service intuitive to users? Is it useful to them? Are there any barriers to their access to the service?

How do we assess our services?

Data streams come from a wide variety of sources, from our daily interactions with users, to more nuanced usability research. Ultimately, our end-users will answer the question of whether or not our services meet the requirements set forth in the vision; we just needed to communicate with them to find out.

Guiding principles and strategies established, the group reached almost immediate consensus that the library's web presence required the greatest amount of attention. Up to this point, problems with the web environment were tacitly known by UX members. In order to drive change successfully, some significant usability testing and data gathering were needed to collect evidence. Ultimately, the strategy was

- Focus all services through the lens of the end user.
- Conduct testing to see if services are discoverable and intuitively usable by end users.
- Identify pain points.
- Make changes based on findings.
- Retest to ensure changes were successful.

Embracing evidence-based decision-making, the group began a long but successful journey of trust building throughout the library, securing easy wins, and building on those to enact major change in achieving the vision of the group.

STAGE 4: COMMUNICATING THE CHANGE VISION

When the group was created, Cline Library consisted of five departments (User Services; Teaching, Learning and Research Services; Library Technology Services; and Content Access and Delivery Services). Communication about the group was initially

disseminated to department heads for feedback and then to the larger library community. The document included a background statement, the charge, reporting structure, membership, scope, and a list of ongoing work. Because the library's web presence is so closely tied to the user journey and is often the sole library experience for distance students, the UX group absorbed the priorities and responsibilities of the library's current web group. As a result, the chair and dean were very intentional in setting the scope of the group:

Scope: Though the group is ultimately responsible for the oversight of the user experience at the Cline Library, it will act collaboratively and proactively with departments on a consultant level. The group will negotiate change with library departments and work to build a library-wide focus on the user experience.

Setting the group's role as that of a consultant and collaborator reduced the chance that cooperation with the UX group would be resisted by staff due to the perception it was somehow hierarchically exceeding departmental autonomy. This in turn broadened departmental engagement. Cross-departmental communication, not surprisingly, had some barriers. The UX group leveraged existing communication channels to reach a broader audience, including

- an open SharePoint site for file storage
- a Microsoft Outlook Listserv
- a ticketing system for staff to use
- regular news items in the monthly newsletter

With established communication pathways in place and a vision firmly established, the UX group set out to begin its work with transparency and a shared understanding.

II. Introducing New Practices Phase

STAGE 5: EMPOWERING BROAD-BASED ACTION

Since the inception of the move to UX, one of its greatest internal wins has been the gradual strengthening of trust both vertically and horizontally within the organization. This development occurred first in approaching the website redesign and in making changes to services offered by the User Services department. User experience work helped to tear down barriers by simply changing the way things were done and the speed with which they could be accomplished. Cross-departmental groups in general, while bringing staff together to complete projects, still had reporting structures that were formal and did not entirely empower the groups to make iterative changes. UX was different in that iterative improvements were the expectation. If changes were not well received by users, the group would know that and immediately make modifications. For example, the website redesign focused on frequent small improvements. There was no waiting, and it was not necessary to compile a list of changes before the enhancements began. The loop of gathering user input during development and then seeking feedback along the way created a continuous process that empowered group members.

It allowed colleagues from across the library to see this approach in action, considering how it might be applied to changes in other programs and services. In the case of disagreement, the user decided, eliminating lengthy discussion over whose version of the user experience was the right one.

STAGE 6: GENERATING SHORT-TERM WINS

The group went about its initial work with a heavy focus on two priorities: establishing personas (figure 12.1) and making changes to the library's website. The creation of user personas, a collaborative effort resulting from a close examination of demographic data about the primary user groups and focus sessions with those groups, served to ground the group's work.



In my free time, I:

- Like to go back to the Valley and visit my family and friends from high school whenever I get a chance. Take yoga, use the climbing wall, and lift weights at the gym.
- Camp and hike with my friends.
- Go downtown and listen to music. I can't wait until I turn 21 and can see more shows

Why NAU?

NAU is affordable, I am a Lumberjack Scholar and that pays my tuition. I still have to pay to live in Flagstaff, and a bunch of fees, but it really helps. My parents can't afford to help out, so I am paying my own way. I also like that I can get to know my teachers and work with them in their labs. I know this experience will help me get a job after graduation. I am hoping to help my little sister pay for college so she won't have to work as much.

FIGURE 12.1

A sample persona

With the website a priority, feedback generated internally from staff and externally from users indicated that there were user interface issues and an overall aesthetic that needed attention. In order to gain greater insight into the problems experienced, usability testing included a significant number of tabling exercises, where users were asked to complete an assortment of tasks compiled from various popular services (e.g., finding peer-reviewed articles, locating books, reserving study rooms, etc.). The group devised scenarios to present to users who were then observed trying to complete the tasks on the website. An example:

Mindset: You are a student in a geology class, and your professor has assigned you to enter and manipulate some data in Microsoft Excel. You don't have a computer, but you've heard that the library has computers students can use.

- 1. Let's start out with the Cline Library home page. First, just take a look at this page and tell me what you would do to find out about computers to use.
- 2. Go ahead and use the library website to find a library computer that includes Excel.
- 3. What are your options? Which computer would you choose? Why?

Data collected through usability testing ultimately played a large role in the group's ability to earn the confidence of administration and staff in general. This shift gave the group more authoritative autonomy to make larger scale changes to the web environment.

As evidenced in figure 12.2, the website as of November 2015 was fairly link-heavy with few pictures. While the site was functional, data collected indicated users desired a more welcoming environment with easier navigation.

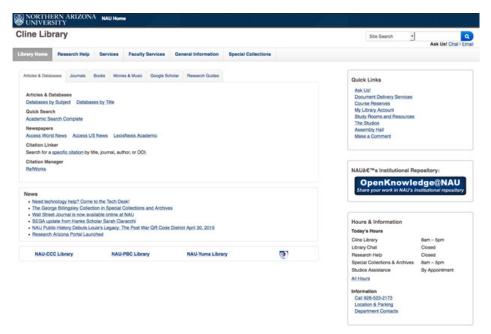


FIGURE 12.2

Cline Library homepage, November 2015

Throughout the FY16 academic year, the UX group conducted usability testing on key services to identify navigational pain points with users. Based on the group's findings, evidenced-based and unambiguous changes were made to the website. Changes included the addition of a new Ask Us! FAQ page, including a portal to the library's popular chat service and other contact information (figure 12.3), and pictures on top-level pages (figure 12.4).

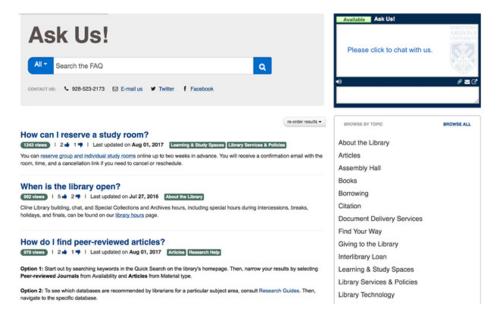


FIGURE 12.3 Cline Library's new Ask Us! FAQ page

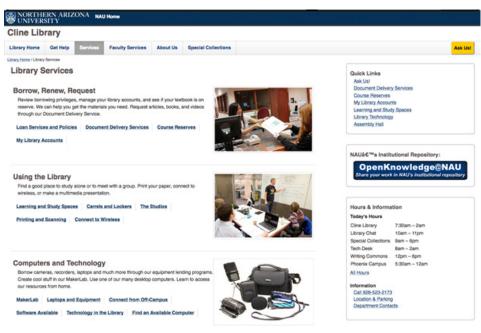


FIGURE 12.4 Example of pictures on top-level pages of Cline Library website Most important, the group was able to make the case that site navigation was troublesome for users and, as a result, was able to update the top-level navigation, adding a background photo and a calendar of events to the library's homepage (figure 12.5).

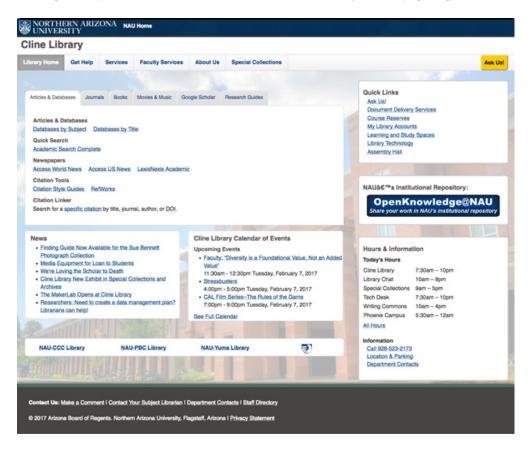


FIGURE 12.5

Cline Library's updated homepage

With a favorable response from users, the UX group gained momentum by rapidly prototyping and deploying changes to the website without bureaucracy acting as a barrier.

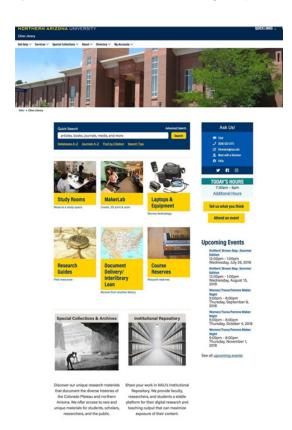
STAGE 7: CONSOLIDATING GAINS AND PRODUCING MORE CHANGE

During the summer of 2017, the Head of User Services worked with the dean to divide the UX group into two functioning working groups: UX-Web and UX-Spaces. The heavy focus on web-related UX work was inhibiting the group from spotlighting the user experience in our brick-and-mortar services and spaces. The division of labor allowed the UX-Web group to focus entirely on the redesign of the webpage and simultaneously allowed a new working group to begin an audit of library spaces.

FALL 2017 USER EXPERIENCE GROUPS (UX-WEB AND UX-SPACES)

- Head, User Services & Experience—Chair (UX-Web, UX-Spaces)
- Librarian (Teaching, Learning, & Research)—Co-lead (UX-Web group)
- Librarian (Teaching, Learning, & Research)—member (UX-Web group)
- Library Specialist, Sr. (User Services)—member (UX-Web group)
- Library Supervisor (User Services)—member (UX-Web group)
- Library Specialist, Sr. (Content, Access, and Delivery)—member (UX-Web group)
- Assistant Dean—Co-lead (UX-Spaces group)
- Library Supervisor—member (UX-Spaces group)
- Systems Administrator, Sr. (Library Technology Services)—member (UX-Spaces group)
- Building Coordinator—member (UX-Spaces group)
- Librarian (Teaching, Learning, & Research)—member (UX-Spaces group)

The library began to see substantial progress, assessment, and impacts from the two smaller groups, strengthening the reach of user experience. The UX-Web group also learned that the institution was migrating to the WordPress content management system (CMS). The new marketing template was appealing to the UX-Web group as it



boasted a modern look and feel and had a responsive design that worked well across mobile devices. Additionally, the library was migrating onto the new library services platform Alma/ Primo through Ex Libris. These factors, coupled with the group's current momentum, were drivers in the decision to become an early campus adopter of WordPress and conduct a full website migration. Working collaboratively with NAU's Information Technology Services (ITS) and leveraging previously collected user data, the group designed and deployed a new homepage featuring the new Primo discovery layer (figure 12.6) in July 2017 with the goal of migrating the back-end content over the FY18 fall academic semester.

FIGURE 12.6

Cline Library's homepage, July 2017

Focus groups were created to guide a data-driven look and feel for the new site, as well as to define its purpose and highlight key services that should be readily available and intuitive to users. Leveraging the success of the group in implementing large-scale change of the web environment through a series of iterative short-term wins, the UX-Web group worked with Information Technology Services (ITS) to rapidly migrate all existing content onto the campus CMS over the winter of 2017–2018. As of this writing, the UX-Web group is conducting an audit of webpages to ensure content is accurate and user-centered. The library's partnership with ITS has grown because of the hard work and dedication of the UX-Web group. As a result of the quality of the library's work, it has been afforded more autonomy in working within the marketing templates, allowing the library to be more iterative in its design and agile in deployment of new website services.

Meanwhile, the UX-Spaces group, in its inaugural year, conducted a myriad of tabling exercises, placed a feedback board (figure 12.7) in various spaces throughout the library, and conducted a library mapping exercise with users. The group found that users were unaware of some key services that could impact their experience in the library. All of these services were prominently marketed on the website, but there was very little marketing of services in the building itself. One example involved a user's reluctance to use an audio/video production studio for a perceived lack of expert help. Help is advertised on the website but not in the physical space. Some users were not aware of the media production studios at all, as they are essentially hidden from sight behind wooden doors. Collaboratively the group designed new signage to fill in these knowledge gaps (see figures 12.8 and 12.9).

ARIZONA IRTHERN UNIVERSITY Cline Library Wants to Know... Library us what you think of our Studios? What are we doing well? What needs to be added or improved? LOVE the macs Ploduction Rooms - More white boards - Outletmarkers like, in maker - Use couch to take power nop - secondel More whiteboards VI Giant pastries Scholars Corner V - More morkers Temp slightly lower than rest of library. the library is closed announcement - Love the standing desk Feature - need more desks like this across campus gets cut off over the # The Sensce is upderful + I love the courtery remindurs Shouldn't have production rooms that are shared. - Fined computer beylooards In'll SICKER kinda smells bad in here v Crymg trapp rel food in

FIGURE 12.7 Example of feedback board



FIGURE 12.8 Sign promoting availability of expert help

PRODUCTION STUDIO 1



Schedule this room online @nau.edu/library

Need help using this room? 928-523-6820 Complete your multimedia project with these tools!

27" iMac Rode Podcaster microphone 47" LCD Screen 5.1 Surround Sound Sound dampening walls Adobe Master Collection CS6 Final Cut Pro X Apple Compressor Camtasia Audacity iLife (iMovie, iPhoto, GarageBand) Handbrake Blender VLC media player Pro Tools Express Avid Mbox 3



FIGURE 12.9 Sign promoting functionality of production studio

III. Grounding Phase

STAGE 8: ANCHORING NEW APPROACHES IN THE CULTURE

Since the formation of the UX group at Cline Library, there has been a paradigm shift in the way staff view change and their ability to become change makers. Using design thinking in strategizing improvements for both the web and the physical building, the UX groups, working alongside departments and stakeholders, have increased the agility of change within the library. Prior to the implementation of UX, change was relatively slow and administered organizationally from the top down or accomplished by project teams charged with major projects but not rapid improvements. By accomplishing several successful initiatives, the UX groups built a layer of trust with staff and administrators that has been crucial to empowering the UX teams to make iterative positive changes to services and interfaces and to rapidly prototype and deploy new services.

Analysis and Conclusions

Although Cline Library's UX program has been wildly successful, the evolution of the UX groups might have been expedited by bringing in a user experience librarian as a consultant to help design the programs and instruct the groups on best practices. However, while this might have brought about more rapid change, it may have slowed the group's ability to learn, grow, and get started. Internally, trust within the group comes down to confidence. Without confidence that the change initiative was based on integrity, data, and a genuine desire for user-centered design, the group would not have had the evidence to change the established paradigm.

Through an open and collaborative communication strategy, the group demonstrated that large-scale change can happen through iterative design, where small failures are OK and no change is seen as a permanent fixture. Using the design-thinking approach, the UX groups empathized with end users by conducting user testing to define problems. The UX groups ideated solutions and either deployed or prototyped solutions for testing and then deployment. This process allowed the UX group to build trust within the library and rapidly make small changes that culminated to large-scale wins. Again, it is not necessarily the win that builds trust, but rather the process itself.

As of the writing of this chapter, the Cline Library User Experience Group consists of two functional working groups: UX-Web, providing oversight for the usability of all aspects of the library's virtual/web environment, and UX-Spaces, currently acting as the research arm for a master plan leading up to a building redesign. Consisting of twelve staff and librarians spanning all departments, the representation is roughly 23 percent of the FTE. What started three years ago as a department called User Services has through effective change management evolved to become the User Services and Experience (USX) department. This is due to UX work and the end-user experience being so closely tied to the core values of the department. USX augments the work of the UX groups by providing student staffing (user experience assistants) to conduct observational data gathering regularly throughout the academic year. It is a partnership that has evolved over the past three years and has some exciting implications for the years to come.

Although the Kotter model was not intentionally used in the construction of the initiative and the development of the process, in retrospect, many of the eight stages

outlined in his book were put into practice and, as a result, have successfully changed the paradigm of program and service development for Cline Library. The first phase of the change process benefited from a shared sense of urgency throughout the library and among all levels of library staff. Although the urgency resulted from several reasons, it propelled everyone toward a new approach. Staff working more directly on the front lines with users and those technical staff responsible for the library's systems not only needed better ways to communicate concerns and ideas about the library's website, but also were prepared to take on responsibility and accountability for making changes. The library's leadership had worked with staff to complete a successful major cleanup and overhaul of the website, but it was time to move the overall responsibility for the content of the site out of the Office of the Dean. Furthermore, Kotter's "guiding coalition" was effective and had the support of library leadership. Perhaps most important of all, the guiding coalition had a strong leader with enough knowledge, experience, and confidence to launch UX and get down to work. While the group had a charge that was approved by the library's leadership team and communicated to the staff, the library did not spend an inordinate amount of time discussing the change. The UX group formed and got busy, and it generated immediate products and changes.

The change was also helped by moving responsibility to the right level and to the right staff. As John Kotter plainly observes in his *Harvard Business Review* article "Leading Change: Why Transformation Efforts Fail":

Because the guiding coalition includes members who are not part of senior management, it tends to operate outside of the normal hierarchy by definition. This can be awkward, but it is clearly necessary. If the existing hierarchy were working well, there would be no need for a major transformation.

Kotter goes on to say:

A high sense of urgency within the managerial ranks helps enormously in putting a guiding coalition together. But more is usually required. Someone needs to get these people together, help them develop a shared assessment of their company's problems and opportunities, and create a minimum level of trust and communication.⁴

The early wins with the library's website encouraged the formation of a new UX group. Now, one group focuses its efforts on the library's virtual learning environment and a second on its physical learning environment. This is helping to anchor UX further in the library's culture, a step necessary for sustained organizational change.

In closing, having come this far, it seems likely that the library will continue to expand UX into other areas of its programs, circling back through Kotter's model of identifying potential early wins and, if successful, consolidating those to both deepen and broaden the impact of the user in changing the library.

Notes

- 1. John P. Kotter, Leading Change (Boston: Harvard Business Review Press, 1996).
- 2. Michael G. Luchs, K. Scott Swan, and Abbie Griffin, *Design Thinking* (Hoboken, NJ: Wiley, 2015), xxi–xxi.

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- 3. Idris Mootee, Design Thinking for Strategic Innovation (Hoboken, NJ: Wiley, 2013), 32-32.
- 4. John P. Kotter, "Leading Change: Why Transformation Efforts Fail," *Harvard Business Review* 73, no. 2 (March–April 1995): 62.

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