

# Moving Mountains

## *Surviving the Migration to LibGuides 2.0*

It's hard to imagine an academic library today without web-based research guides. Dominating the scene is Springshare LLC, founded in 2007, with its web-based application, LibGuides. According to its website (springshare.com), LibGuides are used by 4,800 libraries in 78 countries.

**By John J. Hernandez  
and Lauren McKeen**

Springshare's release of LibGuides 2.0 provides a key opportunity to take advantage of new functionality and re-evaluate how the library manages its system of research guides. Beginning in the summer of 2014, Northwestern University Library began its transition to LibGuides 2.0. With more than 500 published guides and 88 active guide authors, upgrading to the new system was a big job, but also an opportunity for a fresh start.

Management of LibGuides at Northwestern University Library falls within the domain of the user experience department, which is the locus for our systematic effort to get in touch with the library's userbase. At the heart of our philosophy is the notion that the development of library services should be informed by a continuous flow of feedback from users that encompass the full range of consumers of the library's services, including students, faculty, visitors, and staff. In keeping with this philosophy, we were determined to integrate the



user's perspective into all aspects of the migration. Through careful planning and collaboration, we created a process of usability testing, guide management, asset maintenance, and staff training that allowed us to successfully launch the new platform before the start of the academic year.

#### **LIBGUIDES WORKING GROUP**

To help spread the workload and ensure that multiple perspectives were taken into account, we created a working group to manage the transition project. The LibGuides 2.0 Transition Working Group consisted of representatives from our Learning Services Unit, the Web & Mobile Services Unit, Research and Information Services, a represen-

tative from special collections, and one from the science and technology library.

The working group established a timeline, setting goals over the summer for completing milestones along the way. In addition to managing the changeover, the team began to work on establishing a new set of guidelines for guide owners and designing a set of templates for use in the new system. Since the migration required guide owners to review content and make modifications, we needed a way to maintain our momentum, communicate regularly at each step in the process, and provide opportunities for feedback.

We held weekly forums in one of the library's instruction rooms, which are equipped with individual workstations

so staff could actually work on their guides in the moment. Members of the working group were always on hand to move about the room and help answer questions.

#### **A-Z DATABASE LIBRARY**

LibGuides 2.0 utilizes an internal library of database assets to allow for centralized control and maintenance. If your institution had already set up a central database library in version 1.0, it would simply migrate over to the new version. Unfortunately, at Northwestern we had never created a central list, so we had to create it prior to migration. Using an extract of data from our ExLibris MetaLib

stored and can be used by anyone in the system. Guide owners retain ownership of these assets and have the responsibility for maintaining them. Other users may include references to these assets by mapping them to their guides or by copying them. This is similar to the way databases are handled. Database assets are a special case of asset that is not owned by individual guide owners, but by the system administrator, and are mapped or linked to guides.

Part of the migration is the automatic conversion of guide content types into corresponding assets. For example, any version 1.0 content originally held in Links and Lists boxes or Simple Links boxes is upgraded into link assets upon

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system, we produced a spreadsheet of all our databases that contained the title, URL, description, and an indicator of whether access to the database required use of our proxy server.

The necessity of creating the central list turned out to be a blessing in disguise—it allowed us to take better stock of how we were presenting our databases to users. In general, our database descriptions were too wordy, heavy with library jargon, and not particularly informative for students. We shared the spreadsheet with our subject specialists and asked them to trim the verbiage, remove the jargon, and focus more on the student's perspective. After the subject specialists did their editing, we submitted the spreadsheet to Springshare, which converted it into a new A-Z database guide.

#### **DELETING UNNEEDED GUIDES**

In preparation for migration, Springshare recommended reducing the number of guides to transfer by getting rid of any draft versions and obsolete or underused guides. It makes little sense to move these over when they will remain untouched. We strongly encouraged guide owners to review their guides for any that were unnecessary or could use some updating. This provided an opportunity for some who had not looked at their guides in a long time to review them and make needed adjustments.

To facilitate this, we provided guide owners with two reports: One listed all guides that had not been updated in the past 6 months, and the other listed all guides that received less than 100 hits within the past year. This helped us capture both stale and low-use guides. Guide owners chose to update or delete guides as they saw fit, resulting in the removal of approximately 120 guides.

#### **MANAGING LINKS**

LibGuides 2.0 provides an improved mechanism for managing guide content in the form of assets that are centrally

migration. Since we had not created a central database list in version 1.0 until just prior to migration, most database links lived in Links and Lists boxes.

What's more, many guide owners had created their own versions of database links, thus duplicating a great deal of content. Plus, we had multiple copies of links to the same websites. The automatic conversion would result in an overload of redundant link assets. In order to head this off, we asked guide owners to review their guides and replace database links with mapped references to the same resource in the new centralized database list. We also asked them to consolidate any duplicate links to other sites into a single mapped link asset.

#### **USABILITY TESTING: LIBGUIDES 1.0**

With most of the behind-the-scenes work well underway, it was time to focus on guide design and usability. At the time of the migration, Northwestern had been using LibGuides for 7 years but had never done any formal usability testing. Before making any design decisions in the new interface, we knew we needed to test the old system first. We came up with several research questions we wanted answered: How do users find our guides? What motivates their use? Do users find them intuitive? Confusing? Testing the old system before the migration gave us the opportunity to identify what we were doing right in 1.0, and what could be improved before launching 2.0.

After writing out a list of questions, the next step was to identify the representative user group to participate in testing. At Northwestern, LibGuides are heavily used by faculty, staff, and students, but most guides are created for graduate and undergraduate students from a broad range of disciplines. To recruit participants, we sent an email to 90 students who had previously completed user testing or surveys for the library. Of these 90, five agreed to participate in this study. The entire study consisted of several parts:

- The pretest questionnaire gathered general information about each user's grade level, field of study, and library experience.
- The task-based usability test was designed to prompt users to explore the guides, click on links, search for books, and find library help.
- The X and O test had users drawing on printed screen shots of guide pages—circling things they liked and crossing out things they didn't like. This was used to determine preferences in terms of guide aesthetics and design.
- The post-test questionnaire gave the users space to answer open-ended questions regarding their experience using LibGuides.

After filling out an initial questionnaire, the students were directed to use LibGuides to complete a series of tasks based on hypothetical research scenarios. They were encouraged to think out loud as they completed the tasks, communicating their thoughts and feelings as we recorded their actions. If a user became lost or confused while navigating a guide, we were able to authentically capture what went wrong. Most of the time, this sounded like "Whoops, didn't mean to click there ..." and "Ah, that's not what I meant to do." With the students' permission, voices and screen activity were recorded using FastStone recording software. In order to gather as much observational information as possible, each test was administered by two librarians—one to facilitate and another to take notes.

Following the task portion, each student received a color printout of an economics course guide and was asked to physically circle things he or she liked and would use and to cross off things he or she thought were unnecessary. To our surprise, most students went beyond simple X's and O's and began drawing and writing on the pages—providing helpful suggestions and feedback both verbally and on paper. (See Figures 1 and 2 below.)



Lastly, students filled out a post-test questionnaire, which asked open-ended questions about how to improve and promote LibGuides. Each test took between 30 minutes and 1 hour to complete, and the students were each given a \$5 Starbucks gift card as a token of our appreciation.

**POST-TEST ANALYSIS**

After gathering all of the data, the recordings and notes were analyzed for general patterns and themes. Considering this was the beginning of our research and the first round of testing, we did not expect to come to any breakthrough conclusions—and we didn't. But we did see some consistent patterns emerge with each user. Some observations surprised us, and others just confirmed our suspicions. For example, we

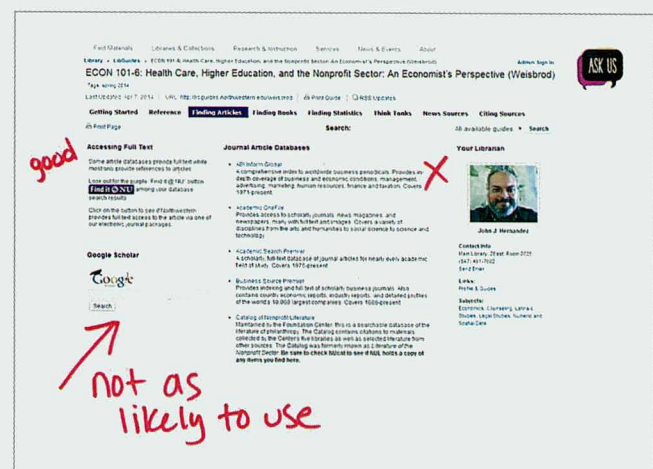
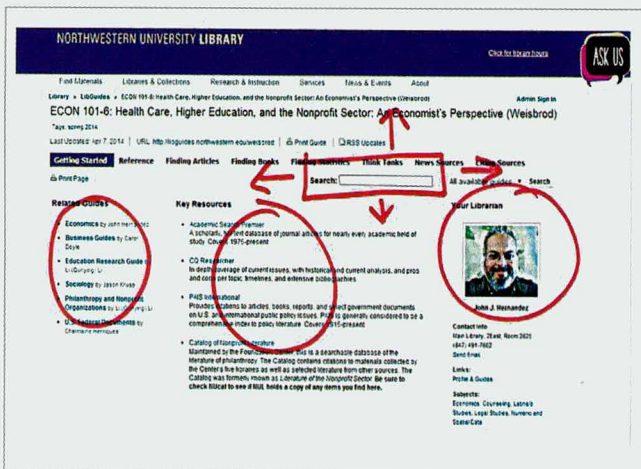


Figure 1 and Figure 2: X&O test results

found that students don't quite understand what the word "reference" means. When asked to search for an electronic encyclopedia within a guide, only one student thought to look under the Reference tab. We also observed that students assume lists of databases are ranked by importance. And if given the option to choose JSTOR to search for articles, they will—even if it isn't the most appropriate database to choose based on their research question.

While simple observation gave us plenty of useful feedback to make positive changes to our guides, we found that some of the most meaningful data came from the direct feedback of students. The think-aloud portion of the test allowed us to capture dozens of memorable quotes, some of which directly impacted work that was being done behind the scenes, such as creating jargon-free database descriptions. One student astutely observed, "Database descriptions help a lot to decide if I'm in the right direction or not. If I click on it and it turns out I don't need it, I might waste two or three clicks." Written suggestions from the post-test questionnaire also gave us plenty of ideas for future usability studies.

#### USABILITY TESTING: LIBGUIDES 2.0

After we finished testing the old platform, we were ready to tackle some of the design decisions for LibGuides 2.0. A major feature of the new system is the ability to change the guide layout from tabbed to side navigation. After doing some research on general user preferences for webpage navigation, the LibGuides working group determined that either layout would be suitable for our purposes, but we wondered if our users had a preference.

To test this, we turned to a free, web-based heat-mapping tool from Optimal Workshop called Chalkmark ([optimalworkshop.com/chalkmark.htm](http://optimalworkshop.com/chalkmark.htm)). Chalkmark uses a screen shot of the page being tested, and a task is set for the user to complete on that page. The screen shot tests are distributed to users via email and completed on their own computers. The software records the location on the page where the user first clicks (also known as the "first impression") and displays the data visually as a heat map. (See Figure 3 below.)

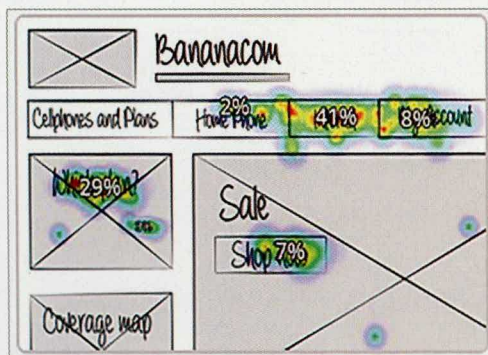


Figure 3: Heat-map image from Chalkmark

Using an A/B testing approach, we created one test for each layout and had users complete identical tasks on each. The tasks were things users would typically do on a LibGuides page, such as finding a book, finding an article, and finding help. Just as in the usability tests of LibGuides 1.0, we tried to recruit students via email, but we received very little response this time around. So we decided to change gears. With an iPad and a bucket of candy in hand, we roved the library asking for participants. This method turned out to be much more successful; we gathered data from 32 participants in total—16 for each navigation layout. (See Figure 4 below.)

In the end, each navigation option had roughly the same percentage of correct clicks. Not seeing a clear winner, we opted to keep the tabbed navigation layout with plans to test this again in the future.

Although the heat-map test did not show a clear layout preference, we gained other insights. For example, we discovered that when users are looking for help on a page, they are more likely to click on the librarian's profile box if it is located on the left side of the page rather than the right. While it may seem minor, this small change can make a big difference in user experience.

#### POSTMIGRATION WORK

Despite our efforts to do as much prep work as possible prior to migration, there remained a great deal of work consolidating links to databases and other resources. In addition, the evolving guidelines and templates require continued work as we move through the system to make existing guides more uniform. We are currently making use of high-level student staff to systematically review guides looking for orphan database links and replacing them with links to the corresponding database assets. They are also working through each guide owner's link assets to consolidate any remaining duplicate assets.

There is yet another transition underway at Northwestern. We are preparing to move to a new integrated library system—Alma by ExLibris. The new record structure in Alma will require us to devise a project for replacing the multitude

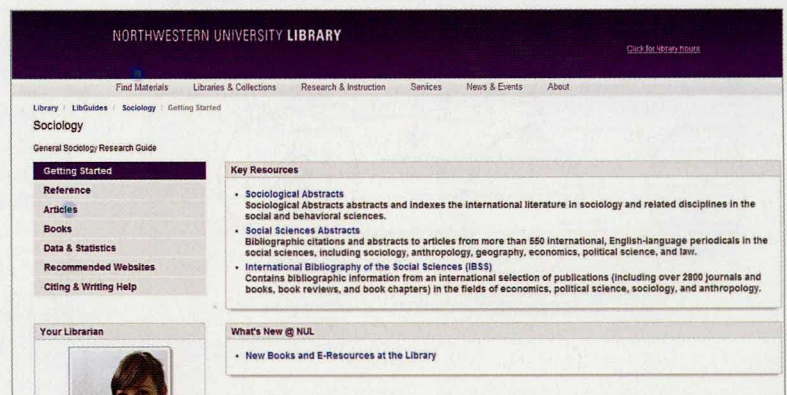


Figure 4: Heat-map image from study results




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of links to specific catalog records that are currently present in our guides. Since many of our guides contain book assets (formerly Books from the Catalog box content), all the catalog references in these must be changed, plus there is an opportunity to further eliminate redundancies by consolidating duplicate book assets at the same time.

#### **FUTURE PLANS**

In keeping with our UX department's philosophy of continuously checking in with our userbase, we plan to continue running frequent and small-scale usability testing with LibGuides. The LibGuides working group is currently designing a new set of guide templates and developing a substantially revised set of staff guidelines. The templates will provide a solid foundation on which to build new guides, putting into practice the basic principles of our instructional philosophy. Templates will be designed and revised as we learn through continued usability testing what works for our users and what doesn't.

We also plan to move our guidelines away from lengthy, verbose pronouncements of what shall and shall not be done and replace that with more engaging documentation—guides for staff with examples of best practices, instructions on how to use the features of the system effectively, and a more interactive environment where staff can share ideas. This holistic approach, incorporating perspectives from both the consumers and the staff, has served us well in our LibGuides migration, and we plan to take a similar approach in the future as we upgrade other Springshare applications.

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