

Implementing LibGuides v2

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Implementing LibGuides 2: An Academic Case Study

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Abstract: Since 1997, the University of Saskatchewan Library has used “subject pages” to highlight key library resources. When Springshare announced it was launching LibGuides v2, a project team was assembled to transition a mixture of locally produced guides and guides created with the original LibGuides v1 software. This article synthesizes best practices for LibGuides found in the literature, outlines our best intentions in the migration process, and shares what actually transpired after considering factors such as technical challenges and institutional culture. We hope other academic libraries can learn from our experience and make decisions that suit their institution best.

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Keywords: LibGuides v2; LibGuides 2; research guides; migration; subject pages

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The University of Saskatchewan (U of S) is a public research-intensive university located in Saskatoon, Saskatchewan, Canada, with just over 20,000 full-time and part-time students. The University Library consists of seven on-campus branch libraries and employs approximately 145 staff members, 40 of whom are librarians. First implemented in 1997, online research guides have pointed users to key library resources for discipline-specific studies such as English or engineering, to specific course information within these disciplines, and to popular topics of interest such as citation style guides and copyright. Liaison librarians often refer to the guides during instruction sessions, reference staff direct patrons to them, and students rely upon them to find relevant resources in one convenient location. In the fall 2014 semester (September 1 – December 31, 2014), the guides received over 163,000 unique page views.

Research guides have evolved significantly at the U of S since their implementation, from hand-coded HTML pages that closely replicated paper pathfinders to complex web tools using sophisticated third-party software. The early research guides were intended as a starting point for undergraduates researching in a specific discipline and contained research tips and links to online resources. A database-driven solution was developed in 2004 by the Library Systems and Information Technology (LS&IT) programming team, and this tool was integrated with the new library website developed in 2007 and incorporated the A to Z database list.

In 2010, the university implemented a campus-wide content-management system (CMS) solution for all websites, which brought another significant change: unfortunately, the library's

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custom subject pages could not be accommodated in the new CMS and thus had to be maintained independently. The system was reconfigured as a stand-alone electronic resources management system, known as ERMA, which allowed for the continued use of the custom Drupal subject pages and A-Z database list. At the same time, the library took part in a province-wide trial of Springshare's LibGuides v1 software, creating a parallel system of research guides that consisted of both ERMA and LibGuides v1 pages. Following the trial, the library committed to subscribing to LibGuides v1, even though a formal assessment of the software had not been completed. Because some librarians transitioned their ERMA research pages into LibGuides v1, and some maintained their ERMA pages, library patrons experienced inconsistency with research guides across disciplines. At this point, the library had not clarified the purpose of the research guides or best practices for creating them. In 2012, this oversight was addressed when an internal committee of librarians was formed to establish the use, audience, and goals of the research guides and identify a list of requisite software functionality. After a thorough evaluation, the committee recommended continuing with LibGuides v1.

Early in 2014, when Springshare announced the development of LibGuides v2, a second project team was formed to transition all research guides to LibGuides v2 and ensure consistent branding and design based upon best practices in the literature. The project team consisted of two liaison librarians, an IT librarian, a technical services librarian, two library assistants with extensive LibGuides experience, an instructional designer, and a programmer from LS&IT. Terms of reference for the group were to plan for implementing LibGuides v2, including how to

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migrate from LibGuides v1 and ERMA pages; present an overview of best practices in web design as they relate to LibGuides; and draft design guidelines for LibGuides v2 pages.

Research guides were already important instruction and discovery tools in our library, but we had the opportunity to make them better. This project applies the findings from usability studies of the LibGuides v1 platform, the advanced options of the new LibGuides 2 software, and knowledge of our local context to create an improved experience for our guide users and editors.

Literature Review

The literature review focused on both qualitative and quantitative research that revealed best practices in the design and use of research guides. What worked for students with research guides, and what didn't? What factors influenced their use? What were barriers to their use? What design principles should be adhered to? These were the types of questions that we focused on during our search of both the published and grey literature.

Several areas of concern and recommendations for best practice were revealed in the literature. These were labels and language, layout and uniformity, website integration, and usability.

Best Practice 1: Labels and Language

Labels

Nomenclature is a dominant theme that runs through the LibGuides literature. While LibGuides is the name often used to talk about these resources, using the product name was not considered an appropriate option by our library and many others (Beaton, Bonnet, Dueber,

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Desai, Piacentine, 2009; Dalton & Pan, 2014; Dunsmore, 2002). LibGuides is a non-descriptive brand name that does not identify the purpose of the guides, and the name could change because of a switch to a different platform or a rebranding by Springshare. Libraries typically adopt a non-commercial label for their guides that is easily recognized by students and is indicative of the resources' content. Dalton and Pan (2014) recommend that the "language used to describe guides should be obvious and intuitive for users to minimise access barriers" (p. 519), while Beaton (2009) cautions that libraries should always use the same label to refer to LibGuides. Beaton (2009) conducted a survey of 16 students asking which labels they preferred, finding no clear consensus. The three most highly ranked labels in his study were "recommended resources" (8 of 16), "research resources" (7 of 16), and "research guides" (6 of 16) (p. 3). The reference librarians at New Mexico State University decided to use the term "research guides" after considering labels such as "subject guides", "research help", and "help finding information" (Beaton, 2009). Dunsmore (2002) notes that, of the various labels that have been used by libraries to describe LibGuides, "research guides" was the most popular (p. 144).

Without an obvious alternative label identified in the literature, we focused on finding a locally relevant solution based on the options suggested by other libraries working with LibGuides. We conducted an informal online survey of library staff to select a name for our guides, and "research guides" was preferred over "subject guides" or "subject pages" by 77% of respondents.

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Language

Related to nomenclature, the way language is used in guide navigation and content description is important to optimize usability. Little (2010) makes a strong case for "reduc[ing] or manag[ing] the working memory load" of users by including "clear and precise headings" on guide navigation tabs and providing "brief descriptions and definitions" of resources (p. 54). Ouellette (2011) notes that a "major problem with subject guides is that tab labels are often unclear, inconsistent, or confusing" (p. 446). Sonsteby and DeJonghe (2013) echo this concern, based on a usability study conducted with 10 participants that found that users struggled to find information when the headings on the guide page tabs did not lead to the content for which they were looking. Additional frustration resulted when inconsistent tab names were used throughout different subject guides on the same library's site.

Research guides should use clear, consistent language that is meaningful to the target audience. Dean (1998) and Vileno (2010) both warn against the use of library jargon in research guides and encourage the use of more meaningful terms, such as "Find a Book". Dean (1998) found that "terminology common to librarians and experienced researchers (such as 'reference' or 'collections') and other general terms (i.e., 'source,' 'research,' and 'tools') often were misinterpreted" (p. 85) by the undergraduate students in their study. To avoid confusion, librarians should choose research guide terms and labels with their users in mind rather than using language specific to the library profession. In addition to avoiding library jargon, Little

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(2010) recommends using a conversational writing style, rather than formal or technical language, to increase student comprehension and engagement.

Our search through the literature did not find consensus on an established vocabulary for research guides. Instead, we chose to focus on encouraging guide editors to eliminate jargon and standardize the labelling of pages and content boxes. While the literature is clear that simple and consistent language increases usability, implementing this best practice was not without its challenges. More than 70 guide editors at the U of S have been highly invested in research-page design and creation to support library instruction and facilitate information seeking. We suggested preferred language for the navigation menu based on library website-usability studies (Kupersmith, 2012) (e.g., “find books” and “find articles” rather than “monographs” and “periodicals”) but lacked the authority to require the use of any particular language outside the limited fields that LibGuides v2 allows us to globally define. Therefore, our greatest success in implementing controlled language was in the naming of the guides. To reinforce their new name, we made a concerted effort to call them “research guides” rather than “Libguides” when communicating with library staff and students.

Best Practice 2: Layout & Uniformity

Usability studies for research guides strongly recommend that guides should be designed to meet patron's information needs (Sonsteby and DeJonghe, 2013) and be "easier for students to use" (Little, 2010, p. 55). Visual clutter and a proliferation of pages are confusing for readers (Ouellette, 2011; Sonsteby & DeJonghe, 2013); therefore, the literature

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recommends short pages that do not require scrolling (Ouellette, 2011). These short pages should be as simple and clean as possible (Hintz, Farrar, Eshghi, Sobol, Naslund, Lee, Stephens, McCauley, 2010; Ouellette, 2011), with clear navigation cues for users (Tawatao, Hungerford, Ray, 2010).

Tawatao et al. (2010) noted that inconsistency of page layout was one area of confusion for research-guide users. Since users often access research guides in several different disciplines, the literature also recommends a common look and feel to ease navigation (Dalton & Pan, 2014; Gonzalez & Westbrook, 2010). Stylistic consistency also gives the users an indication that the guides all serve a common purpose (Gonzalez & Westbrook, 2010).

The use of a centrally created guide template can assist in creating that common look and feel by establishing consistency in labels, elements, and structure (Gonzalez & Westbrook, 2010; Ouellette, 2011; Sonsteby & DeJonghe, 2013). The template guide can also serve as a repository for commonly used boxes and content elements, such as the library catalogue search box, which can easily be copied and reused by guide authors (Gonzalez & Westbrook, 2010).

Dahl (2001) and Ouellette (2011) suggest that the scope and purpose of the guide should be clearly articulated at the outset "so that users know what is being covered and whether their topic is included" (Dahl, p. 231). Based on usability testing conducted at the University of Washington Libraries, Tawatao et al. (2010) recommend including a large box on the homepage of each guide titled "What's in the Guide" (p. 8) to meet this need. This can be incorporated into the template.

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The inclusion of guide-author contact information, placed in a consistent location throughout all of the library's research guides, is another important element of the template. Research guides are typically designed for undergraduate students new to research, who can be overwhelmed by the number of resources available and are unsure how to search and evaluate these resources effectively (Head, 2013). While students are often reluctant to ask for assistance, including librarian contact information on research guides encourages them to ask for help by placing that information at their point of need. The contact information should clearly lead to an appropriate point of contact in the library, including an email and telephone number for the guide author or subject specialist (Hintz et al., 2010; Sonsteby & DeJonghe, 2013). This contact information should also include a professional headshot (Anderson & Still, 2013).

Guide editors should adhere to a content strategy that focuses on carefully selected key resources rather than including a comprehensive list of all resources available. Presenting a short list of key, relevant resources reduces cognitive load for students (Hintz et al., 2010; Little, 2010; Ouellette, 2011). Research guides should also list resources in order of importance or relevance, rather than alphabetically (Ouellette, 2011; Sonsteby & DeJonghe, 2013). These recommendations are repeated throughout the literature and are reinforced by the purpose of research guides – to quickly and clearly direct students to the best sources for their subject area. By being selective and presenting a smaller list of options in an order that highlights the most relevant, students are more likely to succeed in finding quality sources that directly

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pertain to their discipline. Subject librarians add value to research guides by using their expertise to carefully select the most relevant and useful content for their target audience.

Implementation

To promote consistency, we created a template guide reflecting best practices in the literature and our local established naming practices. We encouraged guide authors to make a copy of the template and include their own content rather than re-create an earlier guide in the new format. This was especially effective for guide authors who had to copy content from ERMA; we provided a framework to move this content into LibGuides v2 and simplified the migration process.

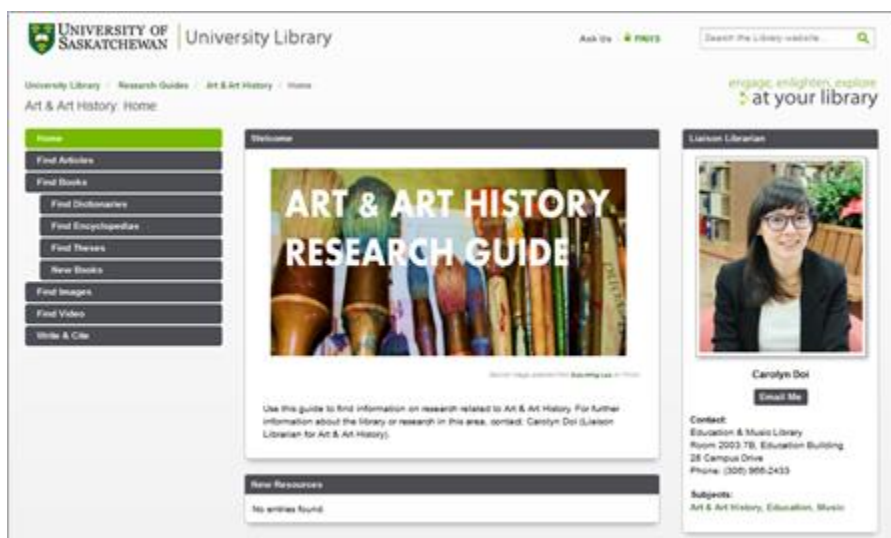
Our first consideration when building the research-guide template was a clearly proven user preference for left-side navigation (Nielsen, 2010). Implementing left-side navigation, one of the most significant changes in LibGuides v2, addresses a major concern from LibGuides v1 because students consistently did not like the horizontal tabbed navigation (Ouellete, 2011) and had difficulty finding the information they sought (Sonstebly & DeJonghe, 2013). We standardized left navigation by incorporating it into our template guide and by not providing the option of horizontal tabs for authors. We also used custom cascading style sheets (CSS) and page headers to incorporate the look and feel of the main University Library website and make it evident to users that these research guides are part of the official University Library web presence. Designing the templates was an iterative process that began in April 2014 and continued through staff training in June and July of 2014.

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The project team made several recommendations for the location and content of the new LibGuides v2 profile box (see Figure 1 below.) based on the literature review findings; however, these were less successfully implemented because of an inability to lock the profile box in the preferred location in the template. Ultimately, guide editors decided where their profile and contact information should appear, leading to some inconsistency. A majority of editors did update their photos to a recent headshot.

Figure 1



Another key to consistency was the creation of a shared library of digital items, a standard feature of LibGuides v2. This shared library includes all documents, links, videos, and other content often added to research guides. It provides opportunities for sharing common resources (Gonzalez & Westbrook, 2010) and ensures that common widgets, like a catalogue or discovery search, are functional and consistent. We also took advantage of the central A to Z Database List functionality, providing centralized, reliable access to all of our subscribed

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electronic resources. The central storage of the assets allows us to collect better statistics and watch usage trends.

Throughout the project, we focused on using web design best practices, especially around consistency, carefully selected content, and usability. While we aimed to make the guides as stylistically consistent as possible, with over 70 guide editors creating content for a wide variety of subject areas and audiences, it soon became apparent that plans to restrict guide authors to a strict format would not be successful. We encouraged guide authors to be creative with the new features offered in LibGuides v2 while also adhering to web design best practices. Although the project team designed a template guide based on best practices and recommended effective strategies for content selection and inclusion, we did respect each guide editor's responsibility for his/her own guide(s). Of our 61 published research guides, nearly 71% of authors changed their page labels and other language to the project team's recommended terms. A further 15% adopted some of the design guidelines. We observed the adoption of many of our language recommendations by a majority of research-guide editors as a success and continue to advocate for further adoption through our how-to documentation and training sessions. The project team ultimately aimed to find a balance between attaining consistency of design and content strategy and the guide editors' ownership of their research guide(s). Currently, there is variation among our research guides. Usability testing will reveal if this variation presents barriers to guide use.

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Best Practice 3: Website Integration

Subject guides are only useful if they are easily accessible by patrons. Strutin (2008) advocates that research guides will only be well used if their links are easily found on the library's homepage, or recommended in bibliographic instruction classes. Gonzalez and Westbrook (2010) recommend that research guides be available to users when and where they need them, while Mahaffy (2012) argues that "librarians must integrate research guides into student's natural web use and study habits if the guides are to be fully effective" (p. 210). As Vileno (2007) points out, the library's homepage "would seem to be the most obvious place to promote subject guides" (p. 444).

Research guides are heavily used for library instruction at the U of S, and the project team saw effective website integration as a critical success factor for this project. The website integration generated robust discussion with guide editors, because directing students to research guides is central to many library instruction sessions. Editors raised concerns that changing the access point too significantly would be disruptive to students who had participated in previous library instruction sessions. In response to these concerns, we provided multiple, high-profile access points, making discovery easier, faster, and more intuitive. To raise the profile of our research guides and provide easy access, we feature them prominently on the library homepage as a tab on the central search box (see Figure 2 below) and in the main left navigation menu. These website integration decisions will benefit from usability testing with

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students in order to ensure that the most straightforward method of access is now being employed. The project team recommends this as an important next step.

Figure 2

The screenshot displays the University of Saskatchewan Library website. At the top left is the university logo and name. To the right are navigation links for 'Library', 'Ask Us', and 'PAWS', along with a search bar. The main header features the text 'University Library' and the slogan 'engage, enlighten, explore at your library'. A central banner image shows colorful Aboriginal art with the text 'Aboriginal Art in the Library' and 'Come Explore'. Below the banner is a navigation menu with tabs for 'Usearch', 'Catalogue', 'Articles & E-Journals', and 'Research Guides'. The 'Research Guides' tab is active, showing a search form with two dropdown menus: 'Select your subject area' and 'Select an interdisciplinary topic', each with a 'Go' button. To the right of the search form is a 'Quick Links For ...' dropdown menu currently set to 'Undergraduate Students', listing various services like 'Group Study Rooms', 'Renewals & Due Dates', etc. On the left side, there is a vertical navigation menu with categories like 'Library Account', 'University Library', and 'Tools & Services'. The 'Research Guides' link under 'Tools & Services' is highlighted with a red box. At the bottom, there is a 'News and Events' section with a link to a '5-Minute Survey On Citation Management Programs'.

Springshare has dramatically improved the standard landing page and customization options for LibGuides v2. We took advantage of some of the customization options to align the branding of the research guides with the library and university websites. We also improved the navigation options for exploring the full collection of research guides at our institution.

Previously, a custom-built landing page pulled links to guides from both ERMA and LibGuides v1

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into one list to disguise the fact that we were running two different systems in parallel. The page was a long list of links with no search or sort functionality.

Best Practice 4: Usability

Much of the LibGuides literature centres around usability studies and how their findings can be used to improve students' research experiences (Beaton et al., 2009; Dalton & Pan, 2014; Hintz et al., 2010; Ouellette, 2011; Sonsteby & DeJonghe, 2013; Tawatao et al., 2010; Vileno, 2010). Tawatao et al. (2010) notes that usability testing is even more important when using commercial software, which can be customized to local user needs. Usability testing often reveals flaws in the design of vendor systems that can be changed in future iterations. For example, several usability studies mention the tabbed navigation design of LibGuides v1 as a challenge (Corbin & Karasmanis, 2009; Ouellette, 2011; Pittsley & Memmot, 2012, Tawatao et al., 2010), and LibGuides v2 provides a solution to this problem by offering a left navigation option. Usability provides valuable feedback to website and user experience designers and should be a part of any web design project. Nielsen's (2012) recommended best practice is to spend roughly 10% of a design project's budget on usability which, on average, doubles a website's desired quality metrics. New applications and updates to existing software create an environment where usability becomes even more important. Usability testing should be revisited on a regular basis to ensure that research guides continue to effectively meet the needs of students (Sonsteby and DeJonghe, 2013).

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Our project plan did not include usability testing as part of the planning or implementation process for several reasons, including tight timelines and uncertainty about the interface options of LibGuides v2 early in the project. During the project, our core concern was improving the user experience, but we did not formally apply the principles of user-centered design (UCD). UCD is an increasingly influential web design practice, typically including usability testing throughout all stages of the design process. This iterative process is key to creating usable, accessible research guides (Sonstebly & DeJonghe, 2013). In retrospect, we recognize that we should have conducted usability testing throughout the design process, and usability testing feedback from students and research guide editors would have been beneficial. Having user feedback would have been particularly valuable for effective integration in the library website. Without usability testing we lacked the perspective of students, particularly those who had not attended a library instruction session. Most of our usability decisions were informed by library staff, rather than students. We recommend any future web projects include usability testing as a central part of the project planning and execution, and that we should implement usability testing for our research guides and their main landing page in the future.

Discussion

The consistent structure and style of the research guide template allowed guide editors to spend most of their time focusing on the content, with some limited layout decisions for the different types of content between the large central column and narrower side columns. Taking the time to design a standard template paid off, allowing us to apply good design principles and create a common look and feel for our users (Dalton & Pan, 2014; Gonzalez &

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Westbrock, 2010; Tawatao et al., 2010). All of our research guides are now visually similar, after applying recommended design principles and using a standard template. The team implemented the information framework and relied on the subject-specific knowledge that liaison librarians bring to the content curation of research guides. Guide editors did not need to be skilled web designers or know how to use HTML and CSS coding to build effective research guides. The custom template gave us the necessary structure and worked well with the other recommendations we developed during the project, which were communicated through documentation and several in-person training sessions

Communication was both a success and a challenge. A comprehensive communications plan was developed in the beginning stages of the project that included several in person meetings, clear points of contact for feedback, and progress updates by email and on a project website. As the launch date approached, communication became less personalized and was instead limited to a series of emails sent to all staff and giving general information. This strategy conveyed all relevant information to library staff, but it did not encourage two-way communication effectively. While more personalized communication takes more time and effort, the project team identified this as a critical recommendation for similar projects at the U of S. Specifically, we recommend that communication strategies target certain stakeholders in the library, e.g., power users, vocal opponents to change, and any other staff who may be disproportionately impacted by the project decisions. Another missing piece was external communications; some librarians communicated with their liaison faculty about the change, but others did not. Limited information was available for students and other members of the

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campus community other than brief messages about downtime during migration on the library homepage.

This connects to our recommendation that usability with students should be included in any future technology project plans at the library. Usability testing is needed for LibGuides v2 because it is significantly different from LibGuides v1, and many of the changes implemented in v2 address the main usability issues in v1 (Corbin & Karasmanis, 2009; Ouellette, 2011; Pittsley & Memmot, 2012; Tawatao et al., 2010).

Another element requiring investigation is the ongoing maintenance and relevance of the research guides, e.g., how libraries create and implement maintenance plans to ensure longer-term utility of these online tools and incorporate them into existing workflows and practices. Our project team created a basic maintenance plan to continue to keep these resources relevant that includes monthly link checking, annual refresher training, and time to work on guides in a collaborative environment. We have also ensured that all research guides have a clearly identifiable owner who is responsible for keeping the content up to date.

Conclusion

Currently, the LibGuides v2 research guides have been in place for 8 months, and we have addressed most of the issues raised during the transition process, including finalizing the look and feel of the pages, completing training documentation, and revising the shared asset collection. The early rush to migrate and update all research guide content between May and mid-August 2014 led to the combined opportunity and challenge of fixing problems with the beta version of LibGuides v2 and iteratively improving our customization of the software while

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guide editors actively worked on their content. This overlap was challenging for both the project team and guide editors who worked in an interface that often changed as the software was updated and readied for full release by Springshare.

Reflecting on the project timeline and goals, we identify our communication and consultation with research guide editors as a strength. Allocating the resources needed to do this well was time-consuming but allowed us to be responsive and empowered editors to take advantage of the improved features of LibGuides v2. While we are proud of the design template we created based on the literature review best practices, the success of this project relied on the engagement of the University Library guide editors. Moving to LibGuides v2 with a defined content strategy, an improved web design, and a plan for supporting continued maintenance will ensure that these resources will continue to be a valuable resource for all students.

In the future, adherence to the maintenance-plan schedule will ensure the research guides do not accumulate broken links or outdated content. The next stage of this project is to conduct usability testing on the website integration and landing page for the research guides and to make any necessary revisions. We must also ensure that any new guide editors are properly trained in the best practices outlined in this paper.

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