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# LibGuides for Instruction

## *A Service Design Point of View from an Academic Library*

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Whether you work in a school library or a public library, a large university library or small community college library, you probably use LibGuides or an open-source alternative. Research and class guides are so common and easy to create that they proliferate widely, leading to quality-control challenges in maintaining and updating guides. Elizabeth German provides insights as to how you can transform your LibGuides from a collection of guides to an instruction-oriented service using two different but complementary lenses: service design thinking and e-learning project planning. She takes a step-by-step approach to each lens, using concrete, easily comprehensible examples and references to additional sources of information to help librarians identify the important elements and principles of each lens. Ultimately, she encourages you to think about your research and class guides as a service that is intended to support a specific type of library user: the learner.—*Sarah LeMire, editor*

**L**ibGuides is a common tool in libraries. LibGuides is a fee-based, licensed tool that enables libraries to easily create small websites called “guides.” These guides are typically created for a subject area, a type of user, a tool, or a class and contain links, videos, and handouts that are intended to help a user access a resource or learn something. As of this writing there are 5,250 institutions using LibGuides and 120,840 LibGuide account holders. The breakdown of types of institutions is not equal: academic libraries make up 43 percent of all LibGuide institutions, K–12 represents 22 percent of institutions, and public and special libraries account for 10 percent each, with the final 15 percent of institutions comprising law libraries, medical libraries, and various partner groups (such as professional associations or vendors).<sup>1</sup> With such a high percentage of institutions within the education system, this breakdown might indicate the usefulness of LibGuides in formal instruction. Furthermore, the literature abounds with articles, chapters, and books dedicated to LibGuides best practices. One oft-cited recommendation for usefulness is to design the guide specifically to a class.<sup>2</sup> However, what does it mean for a LibGuide to be useful in instruction? To find a fresh perspective, this column takes a look at LibGuides from a service design point of view.

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### **LIBGUIDES AS A SERVICE**

As an instructional design librarian at Texas A&M University, a large research institution, I provide training and

one-on-one consultations and create best practices for more than sixty librarians who develop their LibGuides for both subject-based discovery and for specific courses and workshops. Throughout this work, one challenge has been changing the way that we, as an organization, think about LibGuides as a service.

LibGuides was implemented at Texas A&M University in 2010 and steadily grew to include 95 different account holders and more than 1,500 guides. These guides were created as subject and class guides but were also used for professional presentations, research websites, internal documentation, and events. The large number of guides and their varied use made it difficult for users to find a relevant guide. In 2014, to address a new release of the LibGuides software, the library took the opportunity to reassess LibGuides. Through a large representational committee, the group decided to abandon the service model where a single person creates an individual guide for a particular purpose in favor of a service model where guides are created to contribute to a shared library service for users. In particular, it was determined that the “user” would always be a “learner” and that we would treat LibGuides as an e-learning tool. This flip in thinking has enabled the library to plan for greater access to guides and develop a better experience for all learners. This column describes two lenses through which we view our individual guides so that they contribute positively to the overall LibGuides service: (1) service design thinking and (2) e-learning project planning.

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## SERVICE DESIGN THINKING

While libraries have a long history of designing services, the terms “service design,” “design thinking,” and “service design thinking” are relatively new. In a recent blog post, Steven Bell suggested that libraries might be at a design thinking tipping point, which might be evidenced by a new LITA guide by Joe Marquez and Annie Downey, *Library Service Design: A LITA Guide to Holistic Assessment, Insight, and Improvement*.<sup>3</sup> Service design thinking can help change the way that guides are approached for instruction beyond what we have already seen in the library and LibGuides literature about user experience, participatory design, or assessment.

There are many definitions for “service design.” Marquez and Downey define service design as “a holistic, co-creative, and user-centered approach to understanding customer behavior for the creation or refining of services.” But to understand how service design fits into your guides for instruction (also called “class guides”), we will turn outside library literature to the book *This Is Service Design Thinking*.<sup>4</sup> Rather than try to define service design, it describes service design thinking with five core principles: user-centered, co-creative, sequencing, evidencing, and holistic. Taking each in turn we can see how service design will help you conceptualize the way that your class guide is designed to fit into your instruction process.

## User-Centered

User-centered design is a concept that can be thought of as putting oneself in the user’s shoes. This is often hard for people with domain expertise in a particular area. A common phrase in web design is “the user is not like me.”<sup>5</sup> It is only through empathy, user feedback, and data that we can design search services that meet user needs and not our own. User-centered design is not new to libraries nor to LibGuides. The literature has plenty of evidence for making your LibGuides user-centric.<sup>6</sup> A particularly strong article that illustrates the importance of user-centered design, “Guiding Design: Exposing Librarian and Student Mental Models of Research Guides,” describes a card sort comparison between undergraduate students, graduate students, and librarians.<sup>7</sup> The authors found clear differences in the way that librarians approach guides in comparison to the students.

For LibGuides used in instruction, a way to approach guide design is to think about the learning outcomes you created for your instruction session and consider how your instructional material (i.e., the class guide) supports those learning outcomes.<sup>8</sup> By doing this, you flip the question from “What do I need to put on my guide?” to “How does the guide help the student be successful?” One of the most common issues I encounter is that a librarian will feel the need to create a guide that is too comprehensive. The guide has too much content that was not limited by the instructional learning objective, which causes the content to be inappropriate for the learner’s domain knowledge, information literacy skills, and task. By examining your learning outcomes, you can translate those objectives into the goals and content for your guide.

## Co-Creative

The co-creative principle is concerned with including all stakeholders in the process. Stakeholders will vary by instruction program and learning objectives. Stakeholder involvement will vary by time, resources, and scope. From a programmatic point of view, stakeholders would include positions (as they exist in your organization) such as an information literacy coordinator, a web team, and other librarians. Including these stakeholders will build a better guide. For example, by including your web team, you can innovate the look and feel of LibGuides and ensure Americans with Disabilities Act (ADA) accessibility. From a learning objective point of view for your individual guide, stakeholders would include faculty partners and students. Guides that include faculty partners in development tend to have more specific resources that the student will use. Keeping your guide smaller and more targeted will make it easier to meet the learning objective. Faculty involvement can vary from simply asking them for feedback to adding them as an editor to your guide. Student stakeholders are often engaged with feedback surveys after a guide is used in a course. In the literature, there are also examples of student focus groups or usability studies.<sup>9</sup> An area to explore

is the inclusion of students in the creation process of an individual guide.

### Sequencing

While instructors often think about sequencing through lesson planning, service design challenges you to think about the overall instruction service. Sequencing in service design states that the service should be visualized as interconnected actions. Sequencing can be thought of as having three stages: pre-service, service period, and post-service. When lesson planning, define your service period. Is it solely the instruction session or does it follow through the completion of an assignment? Consider how your guide fits into your instruction plan. For example, a guide designed for a flipped instruction model might look different from a guide designed to be used as students work on an assignment after an instruction session. In the case of the flipped instruction, the guide will need to have a clear user-task and any extraneous information will confuse students. If the guide is being used for assignment support, you can assume more about the prior experience of the students since they all went through the instruction session.

### Evidencing

The evidencing principle is defined as visualizing intangible services in terms of physical artifacts. A classic example is when hospitality staff folds toilet paper into a triangular tip in a hotel room to indicate that the bathroom has been cleaned. For a library example, putting library branding within a database lets users know that the resource has been paid for by the library. In instruction, learning objects are often the physical artifact of teaching. Learning objects can be “any digital resource that can be used to support learning”<sup>10</sup> and therefore a guide used for instruction is a learning object. By asking yourself how your guide reflects my instruction, you can prioritize content and only include content that supports the learning objective. Additionally, treating your guide as a reflection of your instruction might encourage you to create a process for quality assurance. Texas A&M’s best practices for LibGuides suggestion to setting a date every six months to reassess your guide and check for broken links. Broken links are a known problem within LibGuides and they will reduce not only the usefulness of the guide but also the credibility of the guide.<sup>11</sup>

### Holistic

The holistic principle states that the entire environment of the service should be considered. A class guide will fit into many environments: the library learning objective for the class, the course, the library guide service, library services, and the student as an individual. As described above, the other four principles can identify factors to consider when using a class guide within the context of your library

instruction. When considering the guide within the context of the course, it is important to consider how the library learning objective matches the objectives of the course as a whole, as determined by the instructor.

Thinking holistically about the library guide service might not be something that an individual librarian has considered when creating their individual class guides. However, how one librarian creates a guide may impact the student’s future perception of guides and library instruction as a whole. Some have taken this as a call for consistency within guides but each library needs to consider its own environment.<sup>12</sup> For one library, mandatory review and standardized navigation might be the solution, whereas another library might approach this through training and best practices documentation. Whatever the solution, considering your guide in the scope of the entire guide service is important.

Lastly, it is important to consider the student as a whole person and the library as a whole. You should consider how the guides fit into other library services with which the student interacts. For example, perhaps the student studies in the library between their class and their job at the student recreation center, and when they have a question, they go to a service point. The service point staff looks at your guide to help answer their question. This scenario has a few assumptions: the staff member knows how to find the guide, the student feels comfortable enough to ask the question, and the guide has the information needed. Holistically you can contribute to the success of the scenario by having a well-composed and easy-to-find guide and conducting a supportive and useful instruction session. Furthermore, thinking holistically about the students as individuals will help generate the empathy needed to create a user-centered design.

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## E-LEARNING PROJECT PLANNING

While service design thinking is useful for providing a shared mindset for all LibGuide creators, project planning is useful for translating that mindset into practice. LibGuides often gets overlooked as an e-learning authoring tool. We typically think about e-learning authoring tools such as media creation tools (e.g., Camtasia) or module creation tools (e.g., Articulate Storyline or iSpring). However, LibGuides is specialized software intended to create a learning experience for a student; in other words, an e-learning authoring tool. By looking at LibGuides as an e-learning project, we might start perceiving the creation process differently. For e-learning projects the most common project management model that is discussed in instructional design is called ADDIE: Analyze, Design, Develop, Implement and Evaluate. However, the ADDIE process is just one stage in a robust project plan. Much has already been written on many facets of planning LibGuides, including general planning, instruction integration, and case studies. This section will take a more generalized view of e-learning project planning. For any e-learning project, you will need to take into consideration

project plans, user experience, content, access, assessment, and accessibility.

## Project Plans

Many instructors and instructional designers turn to ADDIE to help guide e-learning projects. A major drawback to ADDIE is that it does not explicitly call for a project plan. A project plan will include items such as stakeholder identification, goals, deliverables, roles and responsibilities, and a timeline. Stakeholder identification is a useful tool to determine different ways creating your guide can be co-creative. The learning outcomes for your instruction session should inform the goals of your guide, and the primary goal of your guide should be to support your learning outcomes, but you can also think about other goals for your guide. Perhaps you want to reduce the number of individual consultations or want to increase usage of a low-use databases. These types of goals are thought of as “business needs” and it is important to take your business needs into account as well as the learning objectives. Developing a list of deliverables is extremely useful. It seems obvious that your LibGuide is the main deliverable but there are others to take into consideration as well. In terms of learning objects, other deliverables could be resources added to a guide, such as an embedded tutorial or a PDF of a handout. Within your deliverable list, you can also include additional tasks you wish to accomplish within your project, such as creating plans for assessment, communication, or maintenance. Within a project plan, roles and responsibilities identify who is responsible for which deliverable. If others are brought in on the project, consideration will need to be given to their time commitments. Furthermore, a good project plan will have a timeline. The timeline should take into consideration how much time is needed to complete each deliverable, added time for feedback and modifications, any known time conflict such as holidays or travel commitments, and the deadline for the class. If you find that your timeline is compressed on the basis of your deadline, readjust what you are trying to accomplish rather than attempting to try to do the same thing in a shorter amount of time. It is important to note that not all project plans are the same. A guide created to be used as a handout will require less planning than a guide intended for in flipped instruction. Additionally, once you find a format that you like, you might often reuse the same format for other guides. Yet no matter the purpose of the guide or how many guides you have created, you should always be clear and mindful of your intent for each individual guide.

## User Experience

User Experience (UX) has many definitions but can be thought of as how you want your users to feel when they use your service. One way to gauge the UX of your guide is to do a thought experiment. Think about your guide and describe, using three words, how you want your learner to

feel while using your guide. The do the same for how you think your learner will feel when using your guide. Do your words match? To have a guide that generates a positive user experience, it is beneficial to consider UX in terms of usefulness and usability. If a guide is not useful, it does not matter if the guide is useable. To make a guide useful, make sure the learning objectives align with the learners’ expectations and their task. A usable guide will minimize the learner’s cognitive load. Cognitive load refers to the mental effort needed to process information while accounting for the limitations of human memory. A guide that minimizes cognitive load will make the guide easier to use and will not make the learner feel confused. Considerations for usable guides and reducing cognitive load include ensuring that your guide is written for the web, avoiding the use of jargon, chunking content appropriately, and avoiding long lists.<sup>13</sup>

## Content

Within a guide there are many content items and developing a content plan might be overwhelming. It often feels easier to just start creating a guide from a blank template or to base it off another guide than to use pre-planning. However, as with most things, a little pre-planning can go a long way. A content outline where the main headings are pages, and the sub-points are boxes is an easy way to determine what content should be on your guide. Describe how each page and box contributes to meeting the goal of the guide. Be sure to consider the principles presented in the previous section on service design thinking. For example, the order of the content in the guide should match where in your service sequencing the guide is being presented. In the appendix, the first page of the guide contains content that the student should view before the instruction session. Placing this content on the first page will make it more likely that the student will see the content. Another facet of content planning is content maintenance. Content maintenance includes ensuring all links work, screenshots and videos are up to date, and terminology is current, as is mention of dates and words such as “now” or “recently.” You should also make sure that all widgets and RSS feeds work. Our library has a motto: “Don’t have more content than you can curate.” By developing a content plan that includes content maintenance, such as reviewing your guides every six months, you will ensure that guides are built to your capacity while safeguarding their quality.

## Access

An important facet of e-learning project management is determining the access points for the learning object. It is useful for understanding the context in which learning will take place and for understanding the complexity of delivering an e-learning object. Unlike other learning objects, which require finding a hosting platform, LibGuides is simplified by being a hosting platform unto itself. However, determining



and planning for user access is critical. It has been documented that access through a learning management system, online software commonly used in higher education to deliver course content (e.g., Canvas or Blackboard), will cause guide usage to increase.<sup>14</sup> Other methods for providing access include emailing the link to the learners, providing it on an in-class handout, or demonstrating in class how to find the guide. Whatever method is used, the project plan and timeline should reflect the access goal as well as the time needed to provide the access method. Additionally, from a programmatic point of view, if the LibGuide administrators are different from the library's web team, care should be given to work together to guarantee ease of access on the library's website.

### Assessment

Assessment of LibGuides is one of the most common themes in the literature. It is important to consider that how you assess your guide will vary by instructional learning outcomes and the goals for your guide. Thus, from a project management point of view, it is not important what method you chose to assess your guide, as long as choosing the method or methods is part of your planning process through creating an assessment plan. One way to think about an assessment plan is by imagining you have a toolbox of different assessment methods that you can mix and match to build the most effective plan for assessing your outcomes and goals. Methodologies within your toolbox can include usage statistics, pre- and post-quizzes, focus groups, usability studies, and user satisfaction surveys. The scope of an assessment plan is limited by resources and time, and the methods chosen will be constrained by these factors. To help prioritize which methods to choose, consider how the information will be used. For example, you may want to collect data via a focus group only if you have the capacity and authority to implement the suggestions, and are using the focus group as part of a research study. Even an assessment with a low time commitment, such as viewing page statistics, might not be the most useful if time is not allotted to update the guide. Within a project plan, a maintenance plan should also be developed. This will assist in factoring the time commitment available to contribute to assessment. Developing an assessment plan also helps identify individuals who may be needed to assist in the assessment, such as a Google Analytics manager, user experience expert, or assessment coordinator.

### Accessibility

Accessibility is a critical factor when planning a class guide. It is a legal requirement that all material used in a course be accessible to all users regardless of ability. This will include ensuring that the guide can be read by a screen reader, but also that any PDFs are accessible and videos are captioned. While course instructors might be aware of specific accommodation needs in their course, library instructors often

do not know what, if any, accommodation requests have been filed for an individual in a class. Additionally, accommodation requests may not fully indicate if there is an individual who could benefit from accessible material. In a study of online learners, 69.7 percent of individuals who self-identify with a disability did not disclose the disability to their instructor.<sup>15</sup> By including accessibility considerations in all parts of your project plan and using universal design learning principles, any learner will be able to use a guide.<sup>16</sup>

## CONCLUSION

A LibGuide service is a complex network, integrated within instruction programs, curricular models, and a larger learning ecosystem. For an effective LibGuides service, each individual guide needs to be effective. Class guides are a good way to accomplish this through their narrow scope, content that is framed in the context of the learner, and the delivery of information and resources with learners at their point of need. Framing a class guide through a service design thinking lens allows librarians to picture their guides within a larger scope of both their instruction and the library's LibGuides service. Framing a class guide through the lens of an e-learning project planning provides a method to implement service design thinking into your LibGuides. Taking these two lenses together provides a strategy for creating useful and usable guides for all learners.

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## APPENDIX. CLASS GUIDE CONTENT OUTLINE

- Page 1: Home
  - Box 1 (standard): Welcome
  - Box 2 (tabbed): Before Class—Types of Sources (give instructions)
    - Tab 1: Primary Resources (content: video tutorial)
    - Tab 2: Secondary Resources (content: video tutorial)
    - Tab 3: Pre-class Quiz (content: embed google form pre-test)
- Page 2: Top Resources
  - Box 1: Primary Resources (content: links)
  - Box 2: Newspapers (content: links)
  - Box 3: Digital Collections (content: links)
- Page 3: Your Assignment
  - Box 1: Part 1—Research (content: developing keywords)
  - Box 2: Part 2—Annotated Bibliography (content: how-to)
  - Box 3: Part 3—Academic Integrity (content: video tutorial and handout)
- Page 4: Creating a Bibliography
  - Box 1: Citation Style Chicago (content: reuse from citation guide)
  - Box 2: Citation Management Software (content: reuse from citation guide)