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Expanding the pathfinder's purpose: A pedagogical approach to redesigning LibGuides

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Expanding the pathfinder's purpose: A pedagogical approach to redesigning LibGuides

Online research guides are an important service in academic libraries. Many argue for an instructional design approach that prioritizes course or assignment focused guides; however, this does not address how to design effective subject or topic guides that often follow outdated pathfinder structures. This case study outlines one subject library's approach to redesigning their guides with pedagogy and accessibility at the forefront, demonstrating how to apply best practices articulated for course-based guides to a general setting. It addresses how to design effective subject guides to better facilitate patron browsing, promote the collection, and supplement training for staff at service points.

Keywords: research guides, instructional design, best practices, LibGuides, pathfinders

Introduction

LibGuides, or other similar online research guides, are ubiquitous across academic libraries, and there is much debate over how best to optimize them for usability, discoverability, and instructional efficacy. The library literature suggests that shifting away from a pathfinder model, one that lists all applicable resources on a topic, and instead concentrating librarian efforts on pedagogical guides that support specific courses and assignments is the most effective way to leverage instructional best practices and best utilize librarian time (Baker, 2014; Stone et al., 2018). However, this approach fails to address subject or topic guides, those guides that often follow the pathfinder model and can be found in every academic library, making them most in need of updating and critical review. These guides are especially relevant in the performing arts since they can be used to facilitate browsing, helping students in these disciplines discover new music repertoire or plays and navigate library classification systems that hinder this type of serendipitous discovery. Subject guides play an important role as a key place to introduce browsing recommendations—whether via call number ranges or relevant subject headings for catalog searching—both for the patron

and for staff answering questions at a service point.

Although subject guides can be a helpful entry point to exploring the collection, when these guides follow a pathfinder model, they can be problematic from a critical information literacy perspective. Hicks unpacks this aspect of traditional pathfinders, noting:

LibGuides that are structured by librarian-defined understandings of the 'best sources' move the focus of research away from the rhetorical evaluation of evidence...[and] position librarians as the 'arbitrators' of useful knowledge, or the people who have the power to make judgments about the 'rightness' of information. (Hicks, 2015, para. 7)

This is an important critique to keep in mind when designing any type of guide, but it is especially important to consider when designing the subject guide as pathfinders tend to be more prescriptive and less overtly instructional than their course or assignment focused counterparts. The same instructional best practices used in course and assignment specific guides can be adapted to subject guides to empower learners, encourage self-guided exploration of the collection, and de-center the librarian. This approach was proposed by Lee and Lowe in their 2018 article "Building Positive Learning Experiences through Pedagogical Research Guide Design." The continued prevalence of subject guides in academic libraries, especially in certain disciplines, justifies investing the resources and critical reflection needed to improve their design.

For LibGuides to be usable and equitable, they must be accessible as well as instructional. This case study provides an overview of a music and performing arts library's approach to redesigning and updating LibGuides to better align them with best practices for instructional efficacy, usability, and accessibility. We describe the ways in which we apply a pedagogical approach, an approach rooted in the research process and informed by student-centered learning, cognitive load theory, and critical information literacy, to both instructional and general topic guides. We acknowledge that there are valid and varied

reasons for continued investment in subject guides—from using them to highlight popular topics to serving as a reference tool for front-line staff helping students browse—further justifying the maintenance of these resources. We also share the documentation and maintenance plans we developed to standardize future guide creation and ensure that our guides remain usable, instructional, and accessible.

Literature Review

Best Practices & Design

The widespread usage and adoption of LibGuides has sparked substantial interest and discourse in the library literature on their design, instructional potential, and limitations. Most research to date has focused on narrowly scoped design features and strategies for improving guide usability and maintenance. Studies focused on effective guide design and layout have generated growing consensus in the field around guide best practices including using side navigation, employing descriptive and standardized naming conventions, minimizing guide pages, and frontloading crucial content (Sonsteby & DeJonghe, 2013; Goodsett et al., 2020; Bergstrom-Lynch, 2019). Many of these best practices are rooted in strategies for reducing cognitive load for students in the hopes of promoting ease of navigation and engagement with guide resources (Little, 2010).

Related to this literature exploring LibGuide design practices is a body of work focusing specifically on guide accessibility for functionally diverse learners. Stitz and Blundell (2018) conducted a study of LibGuides at a public university in Ohio to assess their accessibility. The authors developed a rubric with criteria drawn from the Web Content Accessibility Guidelines (WCAG) 2.0, Section 508 of the Rehabilitation Act of 1973, and universal web design best practices to identify common accessibility failures. Chee and Weaver (2021) also assessed guide compliance with WCAG 2.0 Guidelines in their case

study of LibGuides at the University of Waterloo; their case study concludes with concrete recommendations for descriptive hyperlinks, meaningful alt-text, and semantic headings as well as warnings about native LibGuide features that are inaccessible, like SpringShare's hover-over description settings. Other case studies (Hopper, 2021; Greene, 2020) have shown that common instances of noncompliance with accessibility standards exist across institutions. While some universities are beginning to prioritize studying and remediating web accessibility barriers, more work needs to be done to educate guide authors on accessible design and standardize accessible guide creation across departments.

Guide Types & Instructional Potential

Aside from the literature on specific design features, there is interest in rethinking the purpose of LibGuides in instructional settings. A number of articles have reviewed the history of LibGuides and their evolution from exhaustive library pathfinders based on physical print bibliographies to targeted online pedagogical tools (Giullian & Zitser, 2015; Morris & Del Bosque, 2010). This shift toward more pedagogical guides is accomplished in part by improved design features, such as accessible plain-language resource descriptions, web-friendly writing, and clear connections between guide content and students' point of need (Conerton & Goldenstein, 2017; Fritch & Pitts, 2016). However, many librarians in the field are taking guide design further by grounding their guides in best practices from instructional design. This includes promoting metacognition for learners, scaffolding challenging concepts, and building in opportunities for authentic practice and application (Baker, 2014; Lee & Lowe, 2018).

An emerging body of research focuses on optimal guide type, probing the limitations of traditional pathfinder-style models—research primers characterized by comprehensive resource lists—and advocating instead for pedagogical-style guides rooted in the research

process. To explore the effects of guide design on student learning, several librarians have conducted studies to see whether student engagement or success in a course is impacted by guide type. Baker created two guides, a pathfinder guide and a pedagogical guide, to accompany a First-Year Experience course at Georgia Southern University and found that "students reported a more positive learning experience with the tutorial [pedagogical] guide" (Baker, 2014, p. 114). Similarly, Lee and Lowe conducted a usability study in which students completed a simulated research assignment interacting with either a pedagogical or pathfinder-style Political Science subject guide. While the study did not report a statistical difference in performance, students using the pedagogical LibGuide reported a more positive research experience in the post-study learning experience survey and spent more time interacting with the guide's resources than those who used the pathfinder guide (Lee & Lowe, 2018). Stone et al. shared similar findings in their report of a pilot Scholarship of Teaching and Learning A/B study exploring how guide type impacted student outcomes. They tested the relative efficacy of a pathfinder and pedagogical-style guide with identical resource content in two first-year seminars of Dental Hygiene students, finding that the pedagogical guide saw increased use and was perceived as more effective by students (Stone et al., 2018). Thus, there is a growing call to reframe how we think about LibGuides to re-center student exploration, discovery, and autonomy.

This emphasis on applying instructional design and learning theory to guide creation is inspiring institutions to rethink their guide design. Librarians at the University of Arizona recently reviewed and overhauled all of their LibGuides and FAQs to "better accompany students through the process of research rather than simply provide them with lists of potential resources" (Paschke-Wood et al., 2020). Librarians at Kennesaw State University did similar work by utilizing card sorting and task-based usability testing to identify student preferences for content, layout, and structure in order to center student voices in the design of

the library's instructional resources (Barker & Hoffman, 2021). At Bowling Green State University, Sheets redesigned the core Art History LibGuide at her institution to be more pedagogical after consulting with faculty and students in the department to determine research pain points. Advocating for more instructional guides, Sheets noted that "when students are using point-of-need resources (like LibGuides), the instruction must be explicit for them to walk away with new knowledge" (Sheets, 2023, p. 168). As students typically engage with LibGuides independently rather than in a structured class setting, guide content must move beyond presentation to instruction, telling students *what* to do with the resources presented, not simply that resources exist.

Case Study

Background

The University of Illinois Urbana-Champaign Library is a large, complex organization consisting of over two dozen public-facing units or subject libraries, several of which are branch libraries outside of the Main Library building. The Music & Performing Arts Library (MPAL) is one such branch library, located in the Music Building and serving the School of Music, Department of Dance, and Department of Theatre. The University Library has a long history of working with SpringShare products and adopted LibGuides in 2007. Many of these guides experienced the transition from the original LibGuides to version 2.0. Additionally, the Library transitioned to Ex Libris' Alma and Primo VE in the summer of 2020. Both transitions impacted the design of guides over time and created maintenance issues that were not always addressed in a timely manner.

At the start of this project in summer 2022, MPAL maintained 66 published guides on the LibGuides platform. Eleven guides supported specific events or exhibits and were not included in this project, resulting in 55 guides considered Subject Guides, Course Guides, or How-To Guides and in scope for this project. These guide types are defined as following for the purposes of this project:

- How-To Guides are created to instruct users on how to complete a specific task, such as finding journal articles, finding scores and recordings, etc. They offer meaningful instruction and, in some cases, are designed to help students develop various research skills. These guides, or portions of them, are often mapped into Course Guides.

 Because they are not tied to a specific course, How-To Guides are meant for a broad audience and should be designed for undergraduates and graduate students alike.
- Course Guides are created to support specific classes. They are a convenient single
 access point for students that unites content otherwise spread across many existing
 guides. Because they are tied to a specific course, Course Guides should be tailored to
 their specific audience and research skill level.
- Subject Guides are created to highlight and provide an access point to specific aspects of the collection. They offer meaningful instruction on how to find materials (including reference material, physical and digital collections, and relevant archival collections) on a particular topic. Because they are not tied to a specific course, Subject Guides are meant for a broad audience and should be designed for undergraduates and graduate students alike.

MPAL's LibGuides were authored over the years by a variety of librarians, graduate assistants, and practicum students from the University's School of Information Sciences. This resulted in inconsistent re-use of existing content such as assets, boxes, and pages, and different intent and guide design principles, posing a challenge for guide standardization and maintenance. At the time of this project, the University Library did not have set standards for creating or maintaining LibGuides; each branch library has historically been responsible for the creation, design, and maintenance of their own guides.

Project Goals

The primary goals of this project included improving the usability and accessibility of all published MPAL guides, while also implementing consistent standards for instructional language and design across guides to shift toward pedagogical-style guides. Our approach to designing pedagogical guides was strongly influenced by the previously cited literature. Despite this shift, we intentionally preserved certain elements of the pathfinder model, organizing many of the guides by resource type with pages called "Finding Articles" or "Finding Primary Sources." We chose to maintain resource type divisions for most guides rather than structure them around stages in the research process, as some other proponents of pedagogical guides have done, for two reasons: (1) these labels mirror assignment instructions that specify source types and we wanted to model the language students encounter in course requirements; and (2) we wanted to ensure that the guides would be usable for students of varying skill levels and research backgrounds. Given these considerations, we kept the pathfinder resource division (with some small alterations, like substituting the more accessible phrasing "Finding Background Information" for the traditional "Reference Materials" page) and focused instead on applying a pedagogical approach on the page and box levels.

Pedagogical guides, unlike traditional pathfinders, seek to explain the *why* and *how* of research—providing recommendations that are contextualized to prompt critical engagement with, rather than passive consumption of, library resources (Stone et al., 2018, p. 284). To this end, it was crucial to articulate a concrete purpose and goal for each guide; clear content goals were an essential precursor to crafting effective instructional language to accompany our resource recommendations. As part of the revision process, we grounded each MPAL LibGuide in one or more learning outcomes, an instructional best practice. For some guides, particularly those geared toward beginning undergraduate researchers, it was important to

also set these at a page or subsection level. Using our learning outcomes as a guide, we then developed introductory language to motivate resource use and examples to contextualize how our recommended sources and strategies might be implemented. By structuring guides as jumping off points with instructions on how to browse or search for additional materials, we draw on the tenets of critical information literacy to shift away from that librarian-defined understanding of appropriate resources and instead center the user, empowering them to explore and search for information themselves.

In addition to instructional content, another critical feature of a well-designed guide is current information and recent resources. Additional goals for this project included the creation of templates and cleaning up mappings throughout to streamline future maintenance, making it easier to keep guides up to date. Another key consideration was clearly stating each guide's purpose and scope. It can be easy to forget the intended goal of a guide over the years, especially since creating or adding content is much easier than evaluating and maintaining, so documenting and reviewing a guide's purpose before adding new content is crucial to keeping guides usable. For this project, we utilized boxes in draft mode on the guide itself to keep track of a guide's intended purpose. This helped to facilitate conversation between the project members while also supporting our reflective practice and commitment to iterative, intentional review.

All MPAL guides were updated using the usability and accessibility best practices identified in the literature. The documentation developed through this review process is included in Appendix 1. The primary audience for this documentation is the graduate students working at MPAL, either as part of a practicum or their assistantship, who contribute significantly to the creation and maintenance of MPAL's LibGuides. However, it also serves as a reference document for MPAL Librarians as they supervise this work. Although this documentation is specific to MPAL, the general principles and guidelines are applicable to

other institutions. This type of documentation could also be useful in other settings where multiple individuals are responsible for creating and maintaining guides.

The best practices in the MPAL LibGuides Best Practices document (see Appendix 1) are derived from the literature with an emphasis on accessibility and cognitive load theory. This document focuses on considerations for creating new guides, basic instructional design, reminders for content to include, consistent layout and formatting, and accessibility standards that should be implemented for every guide. This document also outlines a review cycle for ongoing maintenance. Some of the key best practices include:

- Follow consistent and standardized guide organization, formatting, and elements to reduce cognitive load.
- Follow accessibility best practices, such as using descriptive link text (i.e., "Databases
 A-Z list" rather than "click here"); including meaningful alt-text for images, graphics,
 and screenshots; providing accessible plain text alternatives for infographics; and
 following heading levels appropriately.
- Define an audience for guides and learning outcomes for individual guides, pages, or sections.
- Include brief descriptions for recommended resources (books, databases, etc.) and instructional content for how to identify similar resources.
- Contextualize recommendations with worked examples to provide a compelling use case for students.
- Include recommendations for how and where to browse for related resources.
- Selectively integrate non-library resources with related library resources and not as a separate "internet links" page often found in the pathfinder model.
- Chunk content and use web-friendly, jargon-free writing for easy reading.
- Re-use existing assets to simplify maintenance.

These best practices make online guides more accessible for functionally diverse learners. At the same time, they help reduce cognitive load for all learners by facilitating more intuitive use and navigation. The Course Guide Documentation and Subject Guide Documentation in Appendix 1 outlines creation elements, such as basic layouts, instructional design recommendations, and recommended mappings or standard content to copy, along with prepublication checklists and annual review checklists. Both documents have accompanying template guides to borrow content from during the development process.

The use of a spreadsheet allowed for easy management of this project (see Appendix 2). The sheet included the following columns for tracking relevant information: guide title, guide type, final review completion, priority, date of last link check, date of last content update, next content review date, to do list of identified needed updates (including ones outside the scope of the project), and notes/questions used to track discussions between the individuals working on the project. As with our use of draft boxes, the spreadsheet facilitated conversation and reflection about each guide's purpose and potential, enabling us to track both short-term changes and longer-term goals like ensuring our resource recommendations reflected diverse voices and our examples were relevant and authentic. The sheet was refined as the project progressed.

How-To Guides

We began the revision process with How-To Guides. MPAL's pre-existing suite of How-To Guides focused on discrete, narrowly scoped skills that mapped onto known student pain points, or areas where we received repeated reference questions from students indicating a lack of understanding (e.g., Finding Journal Articles for Music Research, Finding Performance Reviews, and Finding Primary Sources of Music in Libraries and Archives). While the How-To Guides were always intended to be instructional, their initial design was a

haphazard blend of pedagogical and pathfinder. Prior to revision, they featured long lists of recommended databases and journals with little to no instructional preface and included uncontextualized links and inconsistent language. However, because these guides were intended to serve instructional purposes from the outset and they were commonly mapped to Course Guides, revising them to be more in keeping with instructional best practices was a natural place to start this project.

To structure our revisions, we set learning outcomes at the guide and page levels, trying to distill what we hoped patrons would learn from interacting with these resources. In keeping with the conclusions drawn from our literature review, we sought to create asynchronous learning objects that moved beyond lists of sources to become instructional tools that would walk students through an aspect of the research process—whether that was choosing the right database for their topic or developing a coherent research strategy.

Grouping content by learning outcomes also facilitated more focused content at the page-level. The redesigned *Finding Journal Articles for Music Research* guide is an excellent example. This guide's redesign included splitting out instructional content into the following pages:

- Getting Started: this page includes an introductory box explaining key terminology
 and specific tools, a "Developing a Search Strategy" box with a worked example of
 developing keywords, and a "Breaking Down the Research Process" box with steps to
 help structure the research process.
- Structuring Your Search: this page features searching tips, such as how to incorporate
 Boolean operators and quotation marks into searching, while also discussing how to
 use limits or facets to focus your results.

- Using Databases: this page points patrons to the sub-pages about Music-Specific
 Databases and Interdisciplinary Resources, while including a tip about cross-searching multiple relevant databases on the same platform.
- Understanding Your Results: this page helps students "decode" the citations they find in databases, so they understand the different publication formats.
- Getting Full Text: this page highlights how students can get the full text from the database they're searching, other databases, and services like Interlibrary Loan.
- Is It Scholarly?: this page explains the difference between scholarly and popular sources, underscoring the value of popular sources in specific research contexts.

Additional pages in this guide focus on providing recommendations for databases to search, questions to consider when selecting one, and where to identify more based on the topic.

These narrowly scoped pages present instructional content in a way that is more webfriendly, making advice for savvy research easier to skim, navigate, and parse for students.

Key modifications we implemented included adding context, providing examples, and emphasizing nuanced distinctions between information sources. Contextualizing and limiting our resource recommendations was one of our top priorities. Wary of overloading learners with exhaustive lists, we reframed the guide pages on choosing databases to highlight what considerations should guide a researcher in selecting a place to search. For example, before the selected list of "best bets" in the *Finding Journal Articles for Music Research* guide, we call out important distinctions between the recommended databases, noting that some are better for historical coverage, while others are better for popular music. On the page about interdisciplinary resources, we start with the sample topic "protest music" to illustrate how looking beyond music-specific sources to consider political history and cultural studies resources could enrich a student project on the topic. The instructional and introductory content on both of these pages aims to give students the tools to evaluate not just the

databases listed on the page, but the databases they may encounter in other contexts. By providing context and worked examples, we seek to move away from authoritative, prescriptive resource checklists, instead inviting students to think critically about their information needs using the LibGuide as a jumping off point for their own inquiry.

From the perspective of maintenance and reuse, narrowly scoping How-To Guides and grounding them in concrete learning outcomes helped us create more flexible resources. Because these How-To Guides emphasize searching processes and learning general research skills—like how to assess whether a music article is scholarly or how to decode the results page in a database search—we were able to reuse and map these general instructional pages as foundational content for guides with more specific contexts. Taking the time to create solid, pedagogical How-To Guides made updating Course Guides easier and was valuable pre-work for creating more course-specific guides in future while saving librarian time and labor.

Course Guides

Course Guides are some of the more straightforward guides to design and update, as they have a well-defined audience, topic, and purpose. When they are designed to accompany a specific class assignment, setting learning outcomes for content becomes even easier. For Course Guides that are requested by instructors but are not tied to a specific assignment (e.g., the "Can you create a guide to help students find library resources related to my course?" request), setting learning outcomes becomes slightly more complicated; instead, they should cover a wide range of possible research assignments related to the course topic while taking into account the likely research and library experience of the students. The latter is the case for the majority of MPAL's Course Guides.

Creating supporting documentation and a standard template for Course Guides helped facilitate the review and updating process, especially with regard to consistent navigation and language (see Appendix 1 for the Course Guides Documentation). Developing standard navigation and language was a priority for the redesign of MPAL's Course Guides. The importance of uniformity and consistency in design layout and language across guides is a best practice articulated across the literature (Bergstrom-Lynch, 2019; Goodsett et al., 2020). As students take different classes with Course Guides available, the consistent navigation helps them know what to expect, in theory encouraging engagement and facilitating quick identification of the information most relevant to their needs.

For the purpose of simplifying maintenance, mapping and reusing content from other guides rather than creating all content from scratch is essential. During this project, Course Guides were updated to include mappings to How-To Guides when appropriate, either individual boxes or entire pages, and to content housed in the Course Guides Template. In addition to content intended for mapping, the Course Guide Template also houses boxes intended to be copied and updated with relevant course information (e.g., an "Introduction" box that states the purpose of the guide and how to navigate it, along with content designed for an undergraduate audience that can be deleted when not appropriate). This addresses both an instructional best practice (explicitly stating a purpose and providing context) and a usability one (consistency).

While Course Guides rely heavily on mapped content, we also developed new instructional content that was level appropriate for specific courses to supplement the general content being mapped. For example, many Course Guides include a page on "Finding Background Information" that maps subpages as appropriate such as "Dictionaries & Encyclopedias" and/or "Handbooks & Guides." However, the top-level "Finding Background Information" page also includes a "What Source Do I Need" box (see Fig. 1) that outlines

when and why one might want to identify further reference resources. This content is certainly appropriate for an undergraduate student or early researcher, but may not be necessary for a course primarily consisting of PhD students in music education. This content is used selectively based on the expected audience for each Course Guide.

What Source Do I Need?

We've collected a diverse set of reference sources in this guide, and it can be hard to know what type of resource to start with.

Use the following suggestions to help guide you, and check out the sub-pages after this page for recommendations for each of the resource types outlined below!

When you are just starting out...

Consult a **dictionary** or **encyclopedia** as one of the first steps in your research process. They can provide you with basic background so you can begin to formulate a research question and get a better sense of how your topic fits into a broader context. If you are researching an individual, **biographical dictionaries** are another great place to start.

When you are collecting sources...

Once you have gathered some basic background information, consulting a **research guide**, **handbook**, or **bibliography** can help you figure out what has been written about your topic and which major sources you'll need to read next.

Next steps...

You may want to consult histories and monographs on the subject you're researching or start looking for academic articles. However you choose to structure your research, circling back to the types of reference sources discussed on this page can help ensure you are building a thorough and comprehensive list of sources about your research topic.

Still unsure?

Navigating reference tools can be challenging, luckily there are resources to help you identify and locate the reference sources you need. The resources highlighted below are excellent tools for finding music reference works.



Music Reference and Research Materials by Vincent H. Duckles; Michael A. Keller; Ida Reed Call Number: ML113 D83M81997

This text has been the standard guide to source literature of music and contains critically annotated listings of over 3,500 key sources. This comprehensive guide to reference sources is organized into chapters by category of source.



Sourcebook for Research in Music by Phillip D. Crabtree; Donald H. Foster; Allen Scott (Revised by)
Call Number: MPAL Reference Non-circulating ML113 C72S62005

A guide to navigating the vast proliferation of materials in music research. Introductory materials, including a list of common bibliographical terms with definitions, German and French bibliographical terms, and the plan of the Library of Congress and the Dewey Decimal music classification systems, is followed by seven bibliographical chapters, covering lists of sources as well as collective annotations that introduce and identify specific items.

MusRef | Bibliographies | MusRef

A site devoted to music and dance bibliography and reference, including a guide to more than

13,000 print and online music reference resources. Their guide is designed to help students understand how reference sources can guide you to appropriate research materials.

Fig. 1 "What Source do I Need?" box from the "Finding Background Information" page on the course guide template.

Subject Guides

We found less in the literature to guide our revision of Subject Guides, as many of the articles surveyed implicitly cautioned against the creation of topic guides for a general audience, emphasizing instead that Course Guides are a better use of librarian time and energy. While we concur that Subject Guides often fall prey to the design flaws discussed in this article, such as presenting exhaustive, prescriptive resource lists, at MPAL we see a continued need for Subject Guides. Topical pathfinders serve two particularly valuable roles for MPAL's institutional context: (1) they serve as entry points to the collection, facilitating browsing for students, and (2) they are an effective primer for training and supporting students and staff working the service desk. Moreover, the continued prevalence of Subject Guides at other similar institutions indicates that MPAL is not alone in continuing to value pathfinders and expend time and resources maintaining them. As such, one of our central challenges in this revision process was critically considering how we could adapt the best practices and pedagogical approaches other librarians had studied and implemented in Course Guides and bring them to bear on Subject Guides.

Part of our rationale for maintaining and creating Subject Guides at MPAL is that they are an important browsing tool. Patrons frequently approach the MPAL service desk for browsing recommendations—whether it be for particular musical genres, playscripts featuring underrepresented identities, or duets for specific instruments. This anecdotal evidence that browsing is central to performing arts students' library needs is further supported by research. In a 2016 study using photo elicitation to study the unique needs music and dance students have in library contexts, Newcomer et al. found that browsing and interacting with physical materials is particularly critical for performing arts students. There are concrete disciplinary reasons why in-person browsing is relevant for performing arts contexts: students of costume and scenic design may need to browse visually for inspiration,

while musicians seeking new repertoire may need to flip through works with specific instrumentation to find a piece appropriate to their group's composition and skill level.

Newcomer et al. underscored the criticality of interacting with the collection, noting that "Music and dance students highly valued serendipity in the discovery process" (Newcomer et al., 2016, p. 27). With this in mind, we sought to promote student agency and self-guided discovery of the collection through Subject Guides.

As part of the revision process, we incorporated a new standardized box called "Tips for Exploring the Collection" into the landing page design for all Subject Guides (see Fig. 2 for an example). This box features two tabs (1) Call Numbers for Browsing and (2) Subject Headings for Searching the Catalog. The call number recommendations incorporate instructional content on how music materials are classified alongside pertinent ranges for finding scores, recordings, and monographs; this assists with in-person wayfinding in a large collection. Savvy subject heading searching is also critical for performing arts students as limiting by instrumentation, ensemble size, or format is essential for discovery. In providing browsing recommendations, we still incorporated our commitment to pedagogical-style guides; the updated guides provide context for the classification systems used at MPAL and include step by step instructions for subject heading searches rather than simply linking ready-made search strings for students to click blindly. Our goal in building out this section was to empower users so they could navigate and explore for themselves, facilitating the kinds of serendipitous encounters with new materials in the stacks that performing arts students value.

Tips for Exploring the Collection

Call Numbers for Browsing

Subject Headings for Searching the Catalog

Each item in the library catalog is assigned one or more subject headings to tell you what it is about. You can search by subject heading using the catalog's Advanced Search feature.

To search by subject in the catalog:

- . Open the library catalog and click on "Advanced Search" to the right of the search bar
- · Underneath "Search filters", you'll see that the default is set to "Any Field"
- · Click on the arrow next to "Any Field" and select "Subject" from the drop-down menu
- Try a search with one of the subject headings recommended below
- Once you've found a relevant book in the catalog, you can also use the subjects listed in the record to find additional related materials

Here are some suggested subject headings and search tips to help you retrieve the most helpful resources from the catalog:

Start with a generic subject like "Jazz" or "Jazz musicians" as a subject:

- · Add a resource type or qualifier to narrow your results:
 - · Jazz--Dictionaries or Jazz--Discography
 - · Jazz musicians--Biography or Jazz musicians--Interviews
- · Specify the type of information you are looking for:
 - o Jazz--History and criticism or Jazz--Analysis, appreciation
- · Specify the person, place, or era:
 - o Coltrane, John, 1926-1967
 - o Jazz--Louisiana--New Orleans
 - o Jazz--1961-1970

Fig. 2 "Tips for Exploring the Collection" box from the *Jazz* Subject Guide. The "Subject Headings for Searching the Catalog" tab includes instructions on how to search by subject using the Advanced Search and recommended subject headings like "Jazz -- History and criticism" and "Jazz -- Louisiana -- New Orleans".

Moreover, these Subject Guides provide an effective outlet for advertising and promoting engagement with new aspects of MPAL's collection—particularly ongoing efforts to diversify holdings and make collections materials more representative of the students they serve. One of the most viewed Subject Guides published by MPAL is the *Rap and Hip-Hop Research Resources* guide, averaging approximately 100 views per month during the semester. This is a prime example of a subject that, while unconnected to a specific course, is sufficiently popular, topical, and relevant that it justifies the creation and maintenance of a Subject Guide. While several pages on *Rap and Hip-Hop Research Resources* include selected titles or resources, we have worked to apply best practices for pedagogical guide

design throughout. We include instructional content wherever possible, seeking to follow Hicks' lead and position the LibGuide as a starting point for inquiry rather than an authoritative list of allowable sources (see Fig. 3). This content is intended to encourage students to search on their own for more related resources rather than relying strictly on librarian-provided titles. Additionally, this guide is an opportunity to support performing arts students seeking to explore beyond the Western musical canon.

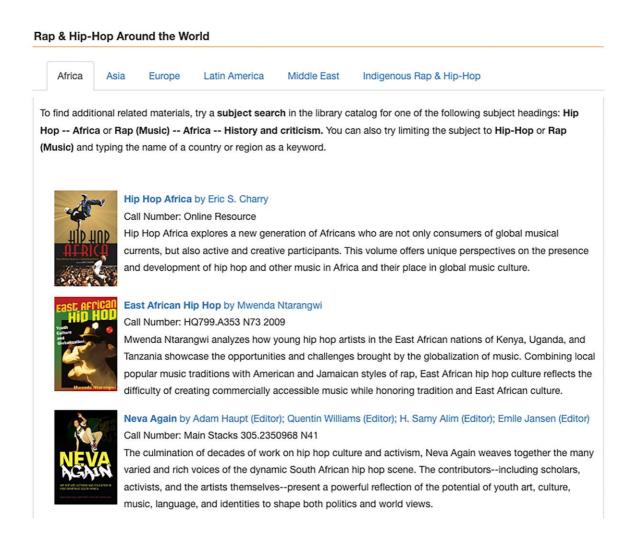


Fig. 3 "Rap & Hip-Hop Around the World" box which prefaces suggested resources with instructional text that encourages users to search and explore on their own.

Beyond supporting browsing and exploration for students, these Subject Guides also serve a critical role for new staff and students working on MPAL's service desk. Though often a forgotten audience in the literature about LibGuides usage, staff members frequently

rely on Subject Guides when guiding or assisting students. Subject Guides are a valuable training resource, enabling MPAL librarians to bring new graduate assistants and paraprofessionals up to speed quickly and ensure that undergraduate students working the desk have plenty of resources to reference as they work with patrons. While the pedagogical approach is necessary for teaching patrons and for staff training, the pathfinder aspect of Subject Guides makes them invaluable reference tools for employees.

Because MPAL has a documented need for these pathfinders, it was critical for us to apply the best practices identified in the literature review to a Subject Guide context. It is easy for pathfinders to become "mega guides" featuring lists of resource recommendations that are so exhaustive, they dissuade all but the most intrepid and seasoned researchers. We wanted to ensure that these Subject Guides would be effective entry points to MPAL's collection—for students and staff alike—so we revised them to: limit the number of recommendations; preface all resource lists with clear instructional content to train both staff and students; and facilitate further research. While much of the literature presents a stark, black and white divide between the pathfinder and the pedagogical guide, we argue that applying instructional design (and restraint when selecting resources) to Subject Guides can result in valuable aids in discovery and learning rather than prescriptive, authoritative bibliographies.

Discussion

While the phase of this project that focused on integrating instructional content throughout published guides is complete, the project itself is still ongoing as LibGuides are adaptive and responsive resources requiring continuous maintenance. Further reviews for accessibility and diverse representation are also still needed. Additionally, MPAL librarians plan to seek feedback from both students and instructors. Initial feedback from instructors on changes to

their course guides has been positive.

This project benefited heavily from a collaborative approach. In our case, an MPAL graduate assistant and student at the Illinois School of Information Sciences with an interest in instructional design tackled a significant portion of the project work. This student's work was supervised by the Music & Performing Arts Librarian with subject matter expertise and understanding of local context and curriculum. Prioritizing work was a discussion between both and relied on usage statistics that showed areas of interest to students, as well as the librarian's local knowledge about course needs and instructor interest in guides. While this is certainly a project that could be undertaken individually, the collaborative approach allowed for multiple conversations that facilitated deeper thinking about why we develop these resources. Due to this approach, we believe the end result is significantly better than either one of us could have achieved alone. For many librarians, such a partnership may not be possible, but we would encourage anyone tackling a similar project to find others that they can discuss this work with throughout the process.

While many disciplines might struggle with defining the extent to which they include non-library resources in their guides, this problem is especially apparent in the performing arts. The number of quality resources freely available online but not discoverable via library search tools is growing, from digital editions of composer collected works to databases that facilitate the discovery of diverse repertoire. Each librarian must make the decision about how much time they are able to put into maintaining guides with external resources, determining how many links they can regularly monitor and update. For the majority of MPAL's guides, we prioritized including a small, representative sample of these types of tools or chose to point to existing tools created by others that aim to list comprehensively and are regularly maintained. This allowed us to focus on including instructional text that instead highlighted the existence of these resources and encouraged users to search on their own.

Certain guides however, such as MPAL's *Diversity, Equity, Inclusion, and Accessibility in the Performing Arts* guide, rely heavily on these types of free online resources since there are limited traditional library resources that help facilitate the discovery of diverse repertoire in the ways that students want to search. Setting these parameters for different guides helped focus the project.

Music is also a discipline that requires librarians to have a deep understanding in order to adequately support users in their search for information and resources. However, it's unlikely that everyone working at a public service point and helping users will have this level of knowledge. As a result, it is important to remember that staff are also users of these resources, whether they consult them as part of a training process or refer to them when providing reference services. This fact is another reason why we see value in and continue to develop subject guides that focus on a specific topic, while still incorporating instructional best practices.

This project revealed a continued need for further research into the design and effectiveness of guides in facilitating student learning. Creating and maintaining LibGuides or online research guides on any platform requires significant resources and further research would help justify this investment. The study conducted by Stone et al. (2018) suggests that pedagogical-style course guides that include information about why and how someone should use a resource may be more effective at helping student learning and retention. Additional research supporting this principle would be beneficial, as would further research exploring how much is too much information to include at the guide or page level. This would further encourage librarians to take a pedagogical approach when designing guides of all types, while also setting parameters for design.

The published literature focuses heavily on articulating best practices for designing LibGuides, but there is still a need for studies that evaluate how well these best practices

actually impact student learning or whether these best practices do what is intended. For example, several studies, including this case study, support the value of consistent navigation across guides so students know what to expect and where to look for the information they need. A study looking at whether students do in fact more quickly identify information across guides with similar navigation and standardized naming would support this claim.

Additionally, a study evaluating whether students in a class that relies on a LibGuide are more likely to seek out guides in other courses or research projects would help address continuing questions about the discoverability of these guides, especially whether they are discoverable at a student's point of need. For course guides specifically, studies focusing on how they impact student performance on assignments would help librarians justify the resources devoted to creating and adapting these resources on a recurring basis. However, this requires instructor buy-in and a solid collaborative relationship between librarian and instructor.

A further consideration is looking more closely at the non-instructional ways in which librarians use research guides. Many librarians use them to promote their collections and facilitate access, especially as we strive to diversify our holdings; an assessment on the effectiveness of this practice would be of use to those of us who do.

Conclusion

This case study outlines our efforts to review and update all of MPAL's published guides by focusing on clearly articulating a purpose for each guide, page, or even box, applying a pedagogical approach across all guide types. This includes rethinking subject or topic guides that traditionally rely on listing out all possible resources in a particular area. Moving beyond prescriptive resource lists to incorporate context and instruction for identifying further information is crucial. By adapting the best practices outlined for instructional guides, subject

guides can go beyond the traditional pathfinder model—preserving the benefits of pathfinders while transforming them into tools that are more usable, navigable, and instructive.

Keeping the focus of this project on improving usability, accessibility, and instructional design helped us prioritize work effectively and identify areas for developing standard content. An emphasis on reducing cognitive load forced us to limit resource recommendations to only the most relevant content. This work will make maintaining these resources easier moving forward. In scoping our instructional and introductory content, we found it critical to remember that while guides should teach the user, they are not intended to be an entire asynchronous course or a surrogate for course-integrated library instruction; guides should instruct at point of need, but the instructional content should not be so exhaustive that the guide becomes unwieldy, difficult to parse, or overly text-heavy.

Chunking content to meet more specific needs and preserving a specific scope—whether it be a detailed guide on finding plays and monologues, a subject guide on a popular topic like hiphop, or a course guide to help students complete an assignment—will keep them usable and maintainable well into the future.

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