Chapter 5

Existing Outside of the Learning Management System

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The process of providing online services for learners brings with it inherent challenges that guide decision-making and impact delivery. As you evaluate tools for suitability, you enter into an analysis that guides your decision-making, establishing criteria for inclusion or exclusion and laying a foundation for a systematic framework to support your efforts. Most of the available tools will comply with legalities like the Children's Online Privacy Protection Act (COPPA); however, this does not absolve you from knowing and following guidelines. Additionally, equitable access remains a high priority for all educators and requires carefully weighing the benefits and challenges of the decisions you make.

When thinking about opportunities for libraries to serve learners in online spaces, what comes to mind? Do you envision a website with basic information such as policies, hours, and links to resources such as online tutorials? Or do you see an interactive, dynamic collection of curated and designed content organized into a virtual library?

Whatever your vision, prioritizing these opportunities should begin with asking questions to create a needs analysis that accurately captures the goals of your organization and represents the needs of your patrons. Answering questions related to your needs triggers an evaluation process directly aligned with selecting tools and mitigating challenges. Further, this analysis helps you determine if an all-in-one approach will work or if a custom-built solution of multiple tools will better meet needs. Using this framework will help you navigate the constantly evolving educational technology marketplace and provide a rich opportunity to design and share resources for your patrons.

Identifying Needs

The first phase of addressing any instructional problem requires analysis. The focus of analysis in this phase rests on identifying and analyzing learners and local context to help guide decision-making and prioritization. This process benefits from generating an organized structure, such as creating a concept map that clearly illustrates the learners, stakeholders, content, and other relevant components as you work through this phase. As shown in the example in figure 5.1, the concept map might have a branch highlighting the fact that your library works most often with younger learners. You might use this information to determine that online resources should support both the learners and their parents, such as including the link to a Common Sense Media review of a particular app or recommended book or movie.[1] The goal of the map is to create a visual representation of the different factors that contribute to and shape your library's needs.

To help generate a concept map, draft a variety of questions related to your patrons, collaborations and

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partnerships, content sourcing, and learning goals. Questions you ask should initiate conversations and discussions that directly contribute to the concept map you create. Some examples might include the following:

1. Who are the learners we most commonly serve?
   a. What are their ages?
   b. What types of content do learners need access to (e.g., video, audio, e-books, tutorials, references, apps, etc.)?
2. Do we cooperate with other institutions and organizations to support programming?
   a. Do partners provide online resources we should be using? If yes, what formats are resources provided in, or how are they made available for sharing?
3. What types of open education resources might we curate from popular open education resource (OER) platforms to support our learners?
4. Does the content we supply or provide access to support formal learning, informal learning, or a blend of both?

Note that there is no right or wrong way to approach this analysis or the concept map you generate. During this process, you may find that you create more than the four main themes described above, and you may find that subsequent questions arise as a result of the process. Be sure to also clearly identify available resources like personnel, supplies, technology, and funding to help with the second phase of this process. Use the opportunity to refine your needs and identify dilemmas that may emerge as a result of constraints, such as limitations on funding or internet access, and refine needs. With a complete needs analysis, you are now ready to generate and prioritize goals.

Prioritizing Goals

The second phase, generating and prioritizing goals, takes place through four steps modified from traditional instructional design practice:[2]

1. generate goals
2. determine feasibility
3. revise goals
4. prioritize goals

The first step serves as an opportunity to generate a wide variety of goals that emerge from the needs analysis. The focus here is to deduce as many goals as possible, ignoring constraints like feasibility. During the second step, feasibility becomes a greater concern, grouping goals into feasible versus unfeasible. Factors contributing to feasibility might include funding for materials, access to expertise or other resources, time constraints, and so on. In the third phase, you might eliminate a goal from consideration or revise phrasing for it. Revising a goal statement might be done to reduce or eliminate constraints or combine similar goals that may require the same resources. Finally, the fourth step invites you to prioritize goals in order to focus development efforts. Prioritizing might involve identifying those goals that can be met within a particular time frame, determining the order in which goals will be addressed, or eliminating a goal from consideration entirely.

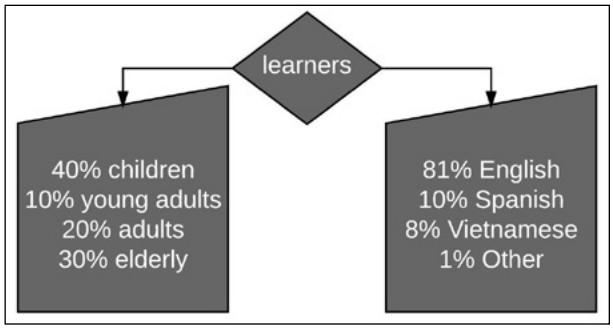

Figure 5.1
Example concept map of learner demographics on age and language.

Returning to the example concept map in figure 5.1, one goal may be "Provide English language learning curriculum to support your multilingual learners." However, that goal might be revised in steps two and three to "Curate OER content to assist English language learners and recommend relevant apps," such as Duolingo or Memrise. You can now begin to identify and select the tools you need to carry out your prioritized goals.

Selecting Tools and Alternatives

Selecting tools, the third phase of the process, begins with identifying the specific types of tools necessary to meet your goals. However, cost considerations almost universally take priority; the rapid age of technological development we live in brings with it sometimes volatile markets, resulting in widely fluctuating prices, features, and tools that fade from use as quickly as they gained popularity. Thus, the guidance in the following sections should be considered general. Specific tools are mentioned only as examples.

All-in-One

While access to a traditional learning management system like Blackboard may not be feasible, there might still be all-in-one solutions that will meet your needs. If you decide that the best approach would be

a virtual classroom configuration with sections for specific topics, grade levels, or other programmatic themes, consider Edmodo or Google Classroom. Either tool allows for flexibility in creating closed classes wherein a librarian might curate resources and activities for book clubs, problem-based and inquiry learning projects, research or other reference tutorials, virtual field trips, and more.[3] Accounts with either platform are free, and it may be possible to take advantage of tools for communicating with parents or guardians when working with younger learners. These tools are suited for working with adult learners, making these all-in-one solutions attractive to many organizations.

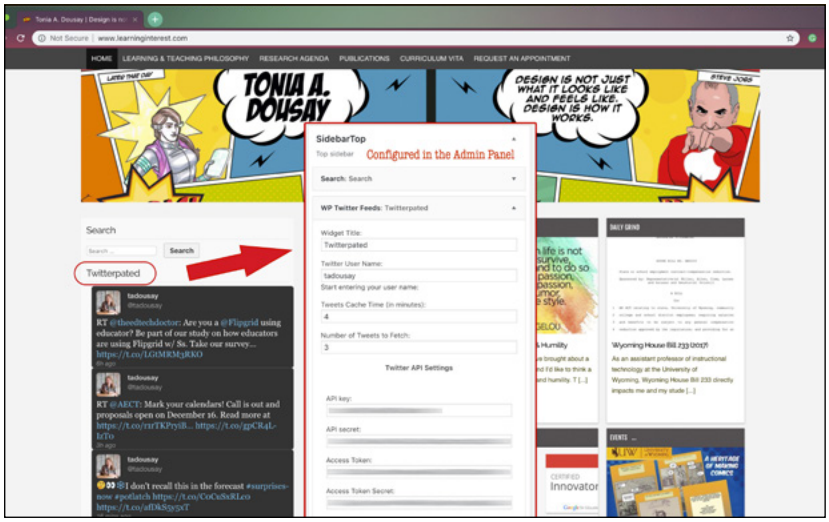

Figure 5.2
Example Twitter widget in WordPress

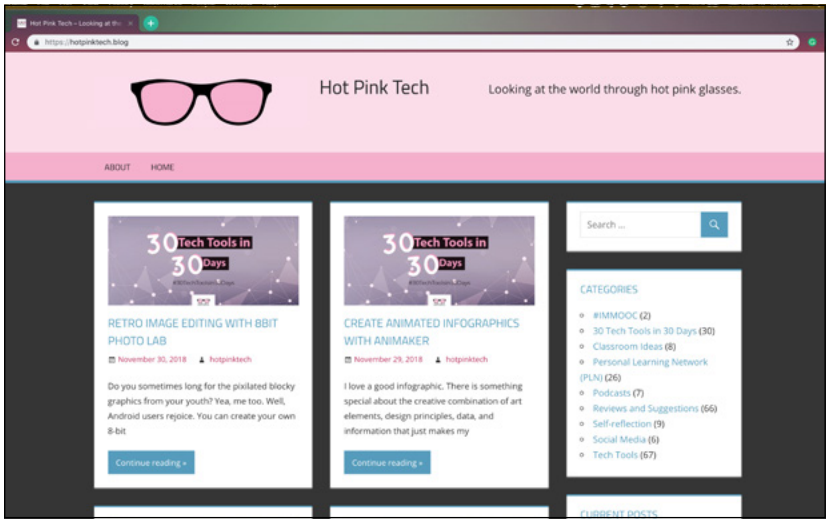

Figure 5.3
Example blog-style layout for dynamic content

Build-a-System

Returning to the needs analysis, some goals identified on the concept map may not lend themselves well to an all-in-one solution, necessitating an approach that brings together networked tools. For example, if a library determines that web-based guides of themed resources are a priority over programming like a book club, then presenting information may benefit from using a wiki, blog, or microblogging approach.[4] If custom content and open access emerge as goals, you must decide how to share and engage around content.

PRESENTING

The first step in creating a networked system involves presenting or sharing information. To provide a single point of access, organizations most often use a website as the container that brings together or embeds other tools. Using a free content management system (CMS), such as WordPress, to create a website is the easiest approach, though others may prefer services like Google Sites. However, designing and hosting a website also means distinguishing between static and dynamic components. A website's static content, such as policies and general details, require little maintenance and simple webpage templates. Dynamic components, on the other hand, can be managed through embedded plug-ins, styled webpage templates, or external links.

There are different options for presenting different content. For example, if your institution maintains social media accounts, you can enable plug-ins that allow you to embed these posts on your website. Figure 5.2 illustrates how the Codium Grid theme on WordPress displays tweets using the WP Twitter Feeds widget. Widgets and plug-ins are small applications that act as an interface on websites to connect different services and display content from these services. Other examples include tools to embed documents (Scribd on WordPress; Google Docs on Google Sites) or

display photo albums hosted on social media or photo services (Instagram on WordPress; Google Photos on Google Sites).

Similarly, website templates help with displaying dynamic content such as tutorials, guides, or regular announcements. On WordPress, this approach often takes advantage of blog-style pages that automate organization, navigation, and structure of content. Figure 5.3 illustrates this approach used by Hot Pink Tech, a website managed by Dr. Kristin Brynteson of Northern Illinois University to share tutorials and informational content related to educational technology. When creating these types of pages, you can assign a variety of tags that facilitate easy searching and assign categories to content to organize posts into themes. Examples of categories might include "tutorials," "maker activities," "recommended readings," "events and exhibits," and so on. The name and structure of categories are entirely up to you and should reflect the programming, resources, and activities offered by your library.

While plug-ins and templates may help with a variety of internally curated or created content, external links will likely still be necessary. If you opt to use an all-in-one LMS such as Google Classroom, it is unlikely that you would use the service to also host other content. Thus, you would want to include the link to Google Classroom, individual courses, and the join code with instructions on how to add a course. Similarly, you might direct patrons to different learning resources, such as Code.org, Khan Academy, or Instructables. Regardless of the website hosting platform, inserting links on any website is fairly easy, using built-in interfaces that mimic word processing applications common among the tools already mentioned.

Code.org
https://code.org

Khan Academy
https://www.khanacademy.org

Instructables
https://www.instructables.com

CREATING

A website can use a variety of approaches to creating content for presenting to patrons. If you generate images to support tutorials, these images can be uploaded to WordPress or Google Photos for embedding on a page. Marketing and event pictures might be hosted on Google Photos or Instagram and embedded on pages through a plug-in. For more advanced, dynamic approaches to content generation, consider the use of wikis.[5] A wiki is a simple authoring system that allows users to create and display content for peers to then read, edit, and update around virtually any topic. Generally speaking, wiki functionality organizes content into articles with a prescribed hierarchical structure, including links to other relevant articles and simplified editing functionality. The permission structures control who can create or modify content and keep users informed of all editing history on articles. Some libraries may find value in using wikis to curate and share content on particular topics or engage learners in coconstructing content related to educational programming—for example, engaging summer readers in writing book reviews.

If integrating a wiki, libraries will want to consider a few options. First, a wiki can be a plug-in activated within a CMS like WordPress (e.g., Helpie WP, Wiki WordPress Plugin). In this approach, all content continues to be managed within a single platform and login. However, if your web hosting service allows you to easily install external tools like MediaWiki, the platform behind Wikipedia, this may be another option to consider. It requires an external link from the primary website to facilitate use and access by patrons. If hosting the main site on Google Sites, incorporating a wiki requires separate hosting and an external link.

SHARING AND ENGAGING

Finally, do not forget planning for how to share created and hosted content as well as engage patrons in using these resources. A deeper look at this particular issue can be found in chapter 5 of this issue of *Library Technology Reports*, which covers embedding social media in online instruction. However, simply stated, the primary goal here involves connecting websites and social media networks together to facilitate "pushing" new content to social media as a form of marketing as well as directing social media users to the website. For example, the WP Twitter Auto Publish plug-in for WordPress allows you to easily share new pages and content as a tweet on a connected account. This approach helps patrons connect directly with the content most relevant to them.

Mitigating Challenges

Legal Policies

There are two major legal challenges that may arise when working with learning resources. The first is the Children's Online Privacy Protection Act of 1998, more commonly known as COPPA. The legislation outlines what data can be collected by websites or other online

services directed at children under thirteen and how they can collect it.[6] This policy primarily affects decisions related to incorporating external websites or installing plug-ins that may ask younger patrons to create an account or otherwise collect data about their online use. The majority of commonly used tools, like Khan Academy, will comply with COPPA, but libraries would do well to investigate tools prior to integrating them to make sure they are in compliance. The second legality to consider is photo releases.[7] When you take photos of events or capture workshops to create tutorials, pictures provide rich content for libraries to share, but some patrons may not want their photo, or photos of their children, taken. Obtaining permission prior to using images is an absolute necessity to prevent problems and help protect the privacy of patrons.

Access

Access to resources rests at the heart of the conversations around distance learning, regardless of context. The two primary considerations during the needs analysis are internet access and bandwidth limitations. Depending on the locale and how patrons access the resources, access to high-speed internet may be limited, or the services used by patrons may limit bandwidth. For example, patrons in rural locations using satellite internet access may find that their provider restricts data to 20GB per month, after which time access is throttled or limited to lower speeds. This means that high-bandwidth media such as videos may be problematic. If resources absolutely must include large amounts of data, you should ensure that autoplay features are disabled to prevent potential issues. All questions related to how and when patrons access resources should be included in the concept map described earlier in this chapter.

Conclusion

Providing online learning opportunities for patrons helps further the goal and mission of libraries. However, few institutions have access to a formal learning management system to assist with organizing and presenting content. Thus, navigating free alternatives or building a system by networking multiple tools requires careful consideration and planning. In this chapter, I have shared four primary areas for scrutiny in this process: identifying needs, prioritizing goals, selecting tools and alternatives, and mitigating challenges. By taking a systematic approach to these opportunities, libraries will be able to effectively assess patrons' needs, design a potential solution, select the appropriate tools, and ensure equity in access.

Notes

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