Sidecar Learning vs LibWizard: A Comparison of Two Split-Screen Tutorial Platforms

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ABSTRACT

Information literacy (IL) instruction is a key role of academic libraries, and split-screen tutorials are emerging teaching resources that are quite effective for delivering online IL training. Sidecar Learning and Springshare’s LibWizard are the leading library-oriented platforms for split-screen tutorials, and Murdoch University Library conducted a comparative evaluation of the two. Each has its advantages and disadvantages, and this paper seeks to inform libraries in their considerations of adopting either or both tools.

Introduction

One of the key functions of academic libraries is information literacy (IL) instruction. IL is the ability to reflectively and ethically find, evaluate, create and apply information in appropriate settings (Association of College & Research Libraries, 2015). These skills are particularly important for knowledge construction, as they engage higher-order thinking (Petty, 2006).

Many libraries are using online methods to deliver IL programs, which is a trend that has only accelerated during the COVID-19 pandemic. One of the best tools available is the interactive split-screen tutorial (see Figure 1), which uses frames to present live web content (typically in a large frame on the right) with which the learner interacts to answer tutorial questions (typically in a smaller frame on the left). These provide opportunities for hands-on and self-paced learning (Hoberecht et al., 2015; Mikkelsen & McMunn-Tetangco, 2014).

Split-screen tutorials are effective for active learning (Deslauriers et al., 2019; Stonebraker, 2015), which in turn is crucial for developing higher-order thinking skills (Petty, 2006; Race, 2015). They have been shown to improve student performance in database searching (Virtue et al., 2014), and support diverse learner needs well (Thomas & Gosling, 2009).
Guide on the Side (GotS, https://ualibraries.github.io/Guide-on-the-Side/about.html) is a pioneer of split-screen tutorials, an open-source platform developed by librarians at the University of Arizona (Sult et al., 2013). As open-source software, the GotS source code is freely available on GitHub, but requires installation on a local Linux server and some technical expertise for ongoing maintenance.

LibWizard (https://www.springshare.com/libwizard/) is another platform capable of building split-screen tutorials. It is part of the Springshare suite of products (which includes the ubiquitous LibGuides), and is made up of four modules: Forms, Surveys, Quizzes and Tutorials. The Tutorials module is a major competitor to GotS. Existing Springshare customers may have LibWizard Lite, which includes the Forms and Surveys modules, as part of their package, and can easily add the Quizzes and Tutorials modules by upgrading their subscription. In 2019, Springshare released version 2 of LibWizard (see Figure 2).

As GotS and LibWizard were the leading split-screen tutorial builders at the time, Sherriff (2017) conducted a comparative review of the two platforms, providing useful insights for libraries seeking to adopt one or the other for IL purposes.

Sidecar Learning (https://www.sidecarlearning.com/) is a software-as-a-service (SaaS) version of GotS (see Figure 1), commercialized by the University of Arizona and managed by members of the original GotS team. As a cloud service, Sidecar Learning removes the technical management burden from libraries.
In 2020, Murdoch University Library conducted a comparative evaluation of LibWizard version 2 and Sidecar Learning. This paper describes that project and seeks to update and expand on Sherriff (2017) by comparing the next generations of these platforms.

**Testing Sidecar Learning and LibWizard**

In late 2019, Murdoch University Library began discussions with Sidecar Learning regarding an evalutative trial from January to March 2020. At the same time, as LibWizard version 2 had recently been released, the project team decided to expand the scope of the project to compare the new version of LibWizard with Sidecar Learning in a structured manner. Library staff who were not familiar with either platform were enlisted to create or evaluate tutorials alongside librarians with experience in LibWizard version 1, to get a diversity of views as developers and end-users/students. Developers and testers were asked to reflect on their experience with each platform and how each could be useful for delivering IL instruction.

The project was conducted in two phases:

1. Development of tutorials
2. Testing and evaluation.

Four librarians were involved in the tutorial development phase, two who had previous experience using LibWizard and two who did not. This
allowed for a range of perspectives to explore different ways of building tutorials in each system. These team members took contemporaneous notes about their experience building the tutorials to provide feedback on the development process.

Each developer created four tutorials:

- A LibWizard tutorial using iframes, where the left and right panels were within the same browser window (see Figure 2)
- A LibWizard tutorial where the panels were separate windows that pop-up (for databases that did not display in iframes)
- A Sidecar Learning iframe tutorial (see Figure 1)
- A Sidecar Learning pop-up tutorial (see Figure 3).

This resulted in a total of 16 tutorials.

Two library staff members were involved in testing and evaluation of the tutorials created: one member of the project team and one librarian who primarily worked with collections rather than IL. Each was asked to fill out a checklist. The following observations were drawn from their feedback.

**Tutorial development**

The back end of Sidecar Learning (see Figure 4) has a cleaner look than LibWizard's, which is more complex (see Figure 5). However, the text in the developer view appears in bold typeface, for no apparent reason, which

![Figure 3. Sidecar Learning tutorial in pop-up mode.](image-url)
initially confused the developers and made the text harder to read (see Figure 6).

LibWizard opens previews in a new tab, while Sidecar Learning tries to open previews in a new window but sometimes opens in the same window. As the developer will need to navigate back to the admin screen to make edits, this means the preview does not stay open perpetually. This instability made Sidecar Learning less user-friendly.

Building tutorials in LibWizard requires flicking back and forth between tutorial-level and slide-level screens to edit content. However, the developers who had no previous experience in LibWizard found it easy to pick up.

In Sidecar Learning, the developer can easily edit content within a single interface. While it is not as complex as LibWizard, some of the field names and functions were confusing. Training provided by the vendor was beneficial in this regard, but the developers in this study found Sidecar Learning less easy to use than LibWizard due to the former’s many small quirks.
A major issue with Sidecar Learning is that it is not obvious whether content is saved, and developers must remember to save regularly and confirm that content has been saved correctly before progressing. In LibWizard, there are prompts to save content before moving on, reducing
the likelihood that content might be lost. Additionally, changes in LibWizard tutorial settings are immediately visible, while in Sidecar Learning this requires a screen refresh. However, neither platform has good autosave functionality.

In Sidecar Learning, text can only be moved within chapters rather than between them, and the process for deleting chapters is non-intuitive, whereas in LibWizard content can be easily manipulated as blocks (Figure 5), even between tutorials. It was also hard to be precise when adding content in Sidecar Learning: chapters and sections often needed to be manually rearranged once created.

LibWizard tutorials can be copied as a basis for new tutorials, but can only be shared with others on the same organizational account. Sidecar Learning tutorials can be both reused within an individual account and exported as JSON files, meaning they can more easily be shared with developers outside the organization.

Sidecar Learning’s structure is based on chapters, whereas LibWizard’s is based on slides and media types (needing a new slide for each piece of media content). This has implications for organization of content. For example, in LibWizard, showing an image, a video and a webpage will require three slides even though they are on the same topic. This is reflected in the front-end headings and navigation, which can be confusing.

LibWizard gives the developer greater ability to customize how the tutorial appears to students, with customizable cover and end pages (the “Welcome Screen” and “Thank You Screen” in Figure 7) and more control over tutorial branding. Other unique features include the ability to make questions mandatory, provide feedback for each option of multiple-choice questions, and pre-fill answers. In version 2, LibWizard added the ability to generate Certificates of Completion at the end of the tutorial (Figure 7).

Sidecar Learning has no options for media or activity types other than websites (such as databases). Thus, if a developer wishes to use a variety of media, the content will need to be broken into multiple digital objects (eg. video, Sidecar Learning tutorial and PowerPoint slides) and require a webpage or other platform to collate them. This limits the capability of the Sidecar Learning platform, but as text-based content is organized into logical chapters rather than arbitrary media types, there is better internal integrity of content.

Sidecar Learning has a built-in final quiz feature that can be turned on or off. However, the quiz link can get lost among the final page text, and students can skip the quiz and still get the certificate of completion. In LibWizard, quizzes are separate and need to be built in the Quizzes module and then be linked to the tutorial. Post-tutorial quizzes can be made mandatory by using a redirect to bypass the “Thank You Screen” of the tutorial.
In the student view, the iframe tutorials are very similar in both platforms. The “Welcome” screen in LibWizard creates a space where introductory information and brief instructions can be provided, better orienting the student to the tutorial. In contrast, Sidecar Learning jumps straight into the tutorial, which can be confusing as the students may not know where to focus their attention.

LibWizard tutorials have a lot more “chrome”—borders, controls and other non-usable space—with the result that the tutorial information and web content occupy a smaller proportion of total space.

One of the key differences between the two systems concerns the “pop-up” variant for websites that do not display in iframes. In this case, Sidecar Learning has a much better presentation than LibWizard’s solution (Figure 8).

In LibWizard, the regular iframe tutorial opens with an error message in the right frame where the database should appear. The student then needs to click a link or button to open the database in a new window. This pop-out window opens on top of the original tutorial, slight narrower and off-set to the right so that the tutorial content in the left sidebar of the original window is visible (Figure 8). The bottom panel comes to the top when the student answers a tutorial question, and it has a “Bring tutorial to front” button (Figure 9) on the blank right side (which should
sit under the other panel) that is supposed to bring the database panel back on top. But sometimes this button disappears, and the student has to manually navigate to the other window.

In contrast, the Sidecar Learning pop-up mode is configured by the developer and activated automatically for the student. This creates two windows that open side-by-side: a smaller one on the left with the tutorial instructions and questions, and a larger one on the right with the live web content (see Figure 3). These may need manual resizing depending on device and browser settings, but otherwise are more user-friendly than
LibWizard, where students must click a button to launch the pop-up window (Figure 10). Additionally, closing the left pane in Sidecar Learning closes the whole tutorial, whereas in LibWizard each pop-up window must be closed individually.

Overall, pop-up tutorials are more unwieldy than their iframe counterparts, but are necessary because many databases do not display in iframes. Thus, Sidecar Learning compares favorably with LibWizard in this aspect.

**Accessibility**

Both platforms meet international standards for web accessibility. LibWizard has reported that it meets standards specified in the US Rehabilitation Act Revised Section 508, the Worldwide Web Consortium (W3C)’s Web Content Accessibility Guidelines (WCAG) version 2.1 (up to the “AA” level, defined as standards that web developers “should” meet), and the European Telecommunications Standards Institute’s EN 301 549 (Springshare accessibility conformance report international edition: Libwizard, 2020). Sidecar Learning has reported that it is compliant with the US Americans with Disabilities Act Standards for Accessible Design (J. Dewland, personal communication, February 11, 2021).

However, neither platform’s self-assessment would include third-party or user-generated content. Developers must take care to ensure that the content they create follows best practice for accessibility (e.g. tagging headers, adding alt-text to images, etc.). This is particularly relevant to

Figure 10. LibWizard requires student to manually open the tutorial in pop-out mode.
LibWizard, which allows for a wider range of media to be used. Additionally, a database presented in the tutorial might also have accessibility issues, though this would be outside the scope of the tutorial developer to fix.

Finally, web accessibility standards may not address the additional cognitive load that pop-up tutorials place on users of screen-reading software. More research may be needed in this area. But these can be mitigated by providing the learning content in multiple formats—such as video, text and split-screen tutorial—to meet different student needs and preferences, as encouraged by the Universal Design for Learning guidelines (CAST, 2018).

Cost-benefit analysis

Enterprise-level pricing for each platform would be tailored to each institution and any library looking to adopt either platform would need to do its own cost-benefit analysis. For Murdoch University, it was less expensive to add LibWizard to our other Springshare subscriptions than to purchase an enterprise license for Sidecar Learning. This will likely be the case for most libraries.

Summary of findings

Table 1 below summarizes the findings.

Key differences between Sidecar Learning and LibWizard that might be most relevant when deciding whether to license one of these platforms include:

- Sidecar Learning's student interface has a better look and feel, but LibWizard's admin interface provides better functionality.
- LibWizard's pop-up mode (for web content that does not display in iframes) is a poor workaround.
- Sidecar Learning is designed for tutorials on websites, including databases, but nothing else.
- LibWizard can accommodate various media types such as images, and videos, as well as web content.

In one sense, the main advantage of LibWizard over Sidecar Learning is its maturity: functions are more user-friendly. Sidecar Learning offers the student a better overall experience than LibWizard, but from a content developer's perspective it is an immature technology that needs further technical development. As Sidecar Learning is a small startup, it is unclear what the future may hold for this platform.

LibWizard version 2 is a considerable improvement over version 1, and builds on the successes of other Springshare products. Springshare is a
larger vendor specializing in the library/educational technology market, and it is possible that given time Springshare will apply enhancements that resolve the current limitations in its pop-up feature. However, with the need to create tutorials for databases that do not work in iframes, including key ones like Scopus, some libraries may choose to adopt Sidecar Learning alongside LibWizard in the short term. In the long term, convergence is likely, with LibWizard improving its pop-up mechanism and Sidecar Learning maturing its back-end interface.

**Limitations of this project**

Murdoch University was unable to conduct any user experience (UX) research with students due to the COVID-19 pandemic. Such information would be more definitive in comparing the effectiveness of these two platforms for delivering library database training. Libraries considering these platforms may want to conduct their own UX research.

| Table 1. Summary of findings. | Sidecar Learning | LibWizard version 2 |
|-------------------------------|------------------|---------------------|
| **Back-end interface**        | Cleaner look     | More complex        |
|                               | Text appears bolded | Potentially overwhelming |
| **Tutorial development**      | Less complex, but less intuitive | More complex, but easier to learn overall |
|                               | Content does not save automatically, easily lost | Prompts to save when navigating away |
|                               | Refresh to view changes | Changes immediately visible |
| **Tutorial structure**        | Chapters         | Media-based “slides” |
| Content options               | No cover page, end page or branding | Cover and end pages |
|                               | Designed for library databases, accepts only URLs | Branding |
|                               | No mandatory questions | Different media types |
|                               | Generic Certificates of Completion via email | Mandatory questions possible |
| **Content reuse**             | Content movable within chapters only | Content blocks reusable within organization |
|                               | Entire tutorials can be exported and shared externally | Entire tutorials can be copied within organization |
| **Post-tutorial quiz**        | Built in | Quizzes are separate modules |
|                               | Quiz link on last page has low visibility | Can be linked or auto-redirected |
| **Tutorial preview**          | Opens in new window | Opens in new tab |
|                               | Sometimes opens on top of editor | |
| **Student experience**        | Less “chrome” | More “chrome” and less usable space |
| “Pop outs”                    | Automatic (set by developer) | Student-initiated |
|                               | Large and small windows side-by-side | Off-set overlapping windows |
|                               | May need manual resizing | Manual navigation between windows |
|                               | Closing one window closes both windows | “Bring to front” button may disappear |
| **Accessibility**             | Compliant with Americans with Disabilities Act | Compliant with WCAG 2.1 (Level AA), Rehabilitation Act Revised Section 508, EN 301 549 |
Conclusion

Sidecar Learning and LibWizard are the leading platforms for the delivery of split-screen database tutorials for IL at academic libraries. Sidecar Learning is a newer product with a strong pedigree as a product derived from GotS, while LibWizard is the second-generation offspring of a major technology vendor.

Sidecar Learning is better able to handle databases that do not display in iframes, and has the better student interface. However, LibWizard is more versatile in its media types and possible uses, and is more user-friendly for developers. But LibWizard’s technical problems with pop-outs could be a crucial factor in favor of Sidecar Learning, and libraries may consider using both platforms at the same time. Future development by each platform would likely make them more similar and thus more competitive with each other.

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