WEBSITE DESIGN:
Best Practices That Really Matter to Your Users

Best practices matter. I know you've heard variations of this statement. Does it hold true for your library's website? Absolutely. I've been building websites since the late 1990s. Long before there were usability studies or web design degrees, the rules of building good sites were passed along via word-of-mouth. For many of us in libraries, we've evolved along with the web in real time. But as website complexity has grown, the expertise required to develop one has also increased. Long gone are the days when a local high school student could build something, and it would be good enough. The demands on a modern-day website are daunting. Now, websites must look good, but they also have to be usable, accessible, and scalable. They have to do a lot more than be internet brochures. It's not only about the code anymore; to be honest, it hasn't been for a long time—and it's here that the problem lies.

Passing guidelines down by word-of-mouth is like playing a game of telephone. Guidelines can be garbled and misinterpreted as they are relayed from one person to the next. Do you remember the three-click rule? Dating back to the very early days of the visual web, this alleged requirement told site builders that no page on a site should be more than three clicks away from the homepage. Many have parroted it over the years, and I still hear it to this day. However, there was never any actual behavioral data to support this stipulation. It was passed on as absolute truth with no science to back it up.

Guidelines now rely on current studies. Nearly everything related to websites is also frequently related to human behavior. It's impossible to separate the two. There has been a lot of examination of how users interact with sites and which conventions they expect to have. Within the library community, there's often no awareness of the existence of this type of data or that it should be applied to library websites. As a result, what users may find on many libraries' sites can be hopelessly outdated, incomplete, or frustrating.

In my experience, library staffers tend to lean very heavily into the first guidelines they heard. This ties into my previous point. If staffers have heard anything about best practices in the past, they may cling to that knowledge, rather than keeping up with new information. They may believe that the original pronouncement is still the correct one. Unfortunately, what one might have learned back in library school could very easily no longer be applicable. I can't effectively disseminate everything one should know about web design in the space of this article, but what I can do is share some critical, evidence-based changes that can be implemented to create concrete benefits for your library site's users.

Speed Matters

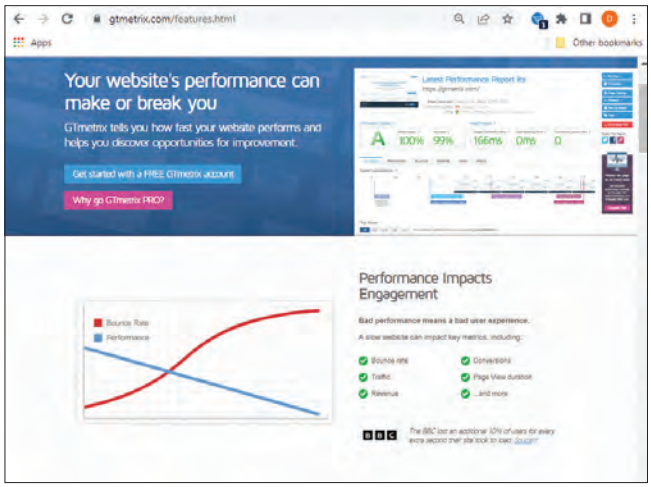
Have you ever done a speed test on your library's website? You might be (unpleasantly) surprised. Even if it seems to be fine to you, it may not be acceptable for your site's users. In the early days of the web, speed had to be considered constantly, as most users accessed the internet

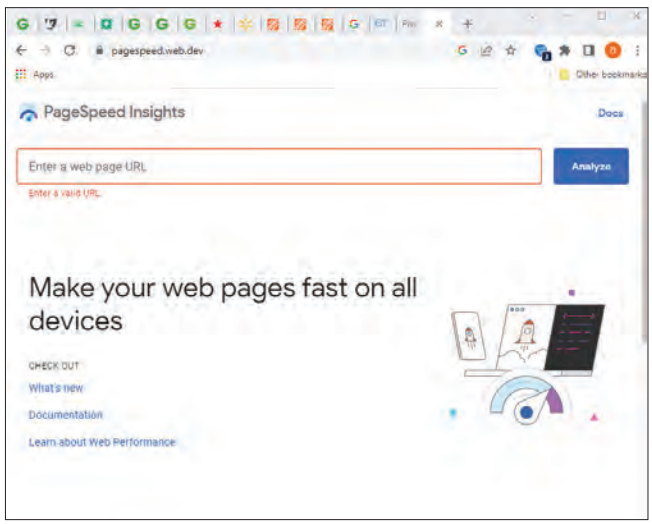
By Laura Solomon

For libraries, long load times result in frustrated users. ...

via 56K modems. With the advent and availability of broadband, suddenly, designers and developers could create sites with heavier graphics and more bells and whistles. The sky was seemingly the limit. Sites grew increasingly complex, and how long a site took to load may not have been as important in the eyes of library staff.

But as you might have guessed, the speed of a site is still very much a concern. Mobile devices have become the primary way that users access the internet.[1] This means that not only can download speed vary from location to location, but those speeds can be problematic. If a site takes too long (and "too long" is subjective) to load, people leave. Google's research has found that the bounce rate—when a user goes to a site and leaves immediately, without exploring the site any further—increases to 32% when load time increases from 1 second to 3.[2] The longer your library's site takes to load, the higher the bounce rate. To avoid this, large companies work very hard to shave even milliseconds off load time. For them, lost users mean lost revenue. For libraries, long load times result in frustrated users and possible negative perceptions of the value of the library.





These tools will help you measure site speed and other performance indicators.

To test the speed of your site, I generally recommend two tools: GTmetrix (gtmetrix.com) and Google's PageSpeed Insights (pagespeed.web.dev). Using both will give you more complete information. Sources of slowdowns can vary, but both tools will help you pinpoint bottlenecks. You may find it helpful to have a professional implement some of the recommended changes, depending on the cause.

Images Matter

As mentioned previously, increased bandwidth brought the potential for increased complexity. One of those complexities was the ability to include more and larger graphics on a site. Images were, and still are, added without consideration of how they could affect users or what real value they might provide. Images have costs to users that must be taken into consideration. While download time is a major one, here are others:

- Money—Here, I'm not referring to the cost of the image to the library (such as paying for a stock photo). Rather, I'm pointing to the fact that many mobile users still don't have unlimited data plans. When a mobile user downloads an image from your library's site, it can cost them literal data from their plan. Is your image that important?
- Attention—Images are almost always added to draw attention. However, this means that users are less likely to pay attention to other elements. Again, is your image that important?
- Perception—The quality of an image plays a role in how users perceive a website. If your site is using clip art or bad photography, it's time to stop. I've been giving this advice to libraries for a long time: Stop putting the same clip art on your website that my son used on his third-grade book reports. The hit to your library's credibility isn't worth it.

The value of an image is a factor that is often ignored in favor of something that looks cool. The purpose of an image is critical. Don't ignore the value proposition for the end user.

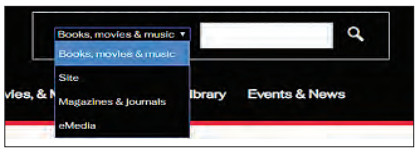
Navigation Matters

When it comes to making a site usable, it probably surprises no one that how the site's navigation is labeled and organized makes a tremendous difference. If you look at 20 different library websites, you will find 20 different organizational schemes. But there are some quick, concrete steps you can take to improve yours.

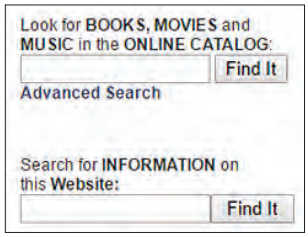
Be careful of adding too many options—While there is no magic number that is recommended, I strongly urge libraries to be aware that when another navigational choice is added, it can increase a user's cognitive load. In other words, the more choices someone has, the more likely it is that you can overwhelm them. Think about standing in a grocery aisle and having to choose from 30 varieties of

ketchup. Don't add ketchup varieties unless it provides real value for users.

Labels need to mean something—Labels that don't have real meaning are called "mystery meat navigation" (Links, Resources, Information, and Explore). None of these tell users what they'll see when they click that option, which means that few, if any, will actually use it. If people don't know what the result will be, they usually will not waste their time with it.



It's better to show multiple-option search within one search field.



How not to display multiple search functions

Redundancy is a net negative—Having the same link more than one place on a page is both a usability and an accessibility problem. Users have an underlying assumption that individual links lead to individual options. When the same link appears in more than one place on the same page, that breaks the user's mental model. The same issue applies for accessibility, except now it will be made worse, as a user with assistive technology has increased their mental load by trying to figure out the difference with little to no additional context. You may believe you're making something easier to find by putting it in more than one location on the same page; instead, you're adding complexity and annoyance to the user experience.

Get a breadcrumb trail—Even if you don't know the phrase "breadcrumb trail," I guarantee you've seen them. They generally appear near the top of a site's content and look something like this: Home>About Us>Hours. This navigational element provides users with context as to where users currently are in the site and what other content makes up the hierarchy. Since each part of the trail is a link to that page, it also gives users a quick way to navigate to other related locations.

Search Matters

If your library's site doesn't have a search function at all, stop right now, and fix that before anything else. Search is mission critical and can be both the first and last resort for people who are looking for something on the site. Aside from that, focus on the following best practices.

Allow search for more than one thing, but not in more than one place—At a minimum, a library's website should make it possible to search both the site and the library's online catalog. However, these should not be visually separate searches. There shouldn't be one search field for searching the site and another for searching the catalog.

Ditch the placeholders—A placeholder is when text is already in a search field. Generally, it will state something such as "Search for ..." or something similar. While this may have been initially helpful, more recent research shows just the opposite. Having text existing already in a search field has proven to confuse users rather than help. "Placeholder text within a form field makes it difficult for people to remember what information belongs in a field, and to check for and fix errors. It also poses additional burdens for users with visual and cognitive impairments."[3]

Put it in the right place—Because the search feature is a standard, expected site element, putting it a nonstandard location confuses users.[4] One client my agency worked with insisted that they wanted the search field in the site's footer. After some discussion in-house, we told the client that this was too significant a usability concern, and we didn't want our agency associated with it. We told them we planned to cancel the contract. Thankfully, the client came around. Don't make users search for search.

Users Matter (But Yours Aren't Special)

Libraries develop their collections to support their communities. The collection of one library is not the same as another's. This same doctrine does not apply to websites. Remember, users come to your library's website with the entirety of their experiences on the web behind them. If your site flouts conventions or is missing expected elements, it isn't serving its community—it's presenting obstacles people aren't anticipating. It's all too easy to believe that, online, your library's patrons are special snowflakes. Rather, they are like everyone else using the web: They want to be able to apply their existing proficiency and be comfortable when using the library's website. Best practices matter. Make your library's website a familiar place to be. ■

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is M.C.I.W., M.L.S., is the library services manager for the Ohio Public Library Information Network (oplin.ohio.gov) and a W3C-certified front-end web developer. She has been doing web development and design for more than 20 years in both public libraries and as an independent consultant. She specializes in developing with Drupal. A 2010 *Library Journal* Mover & Shaker, she's written three books (meanlaura.com/books) about social media and content marketing, specifically for libraries, and speaks internationally on both these and other technology-related topics. As a former children's librarian, she enjoys bringing the "fun of technology" to audiences and in giving libraries the tools they need to better serve the virtual customer.

Endnotes

1. Mobile device usage: explodingtopics.com/blog/mobile-internet-traffic#percentage-of-mobile-traffic
2. Bounce rates: thinkwithgoogle.com/marketing-strategies/app-and-mobile/page-load-time-statistics
3. Placeholder text: nngroup.com/articles/form-design-placeholders
4. Search box placement: uxmag.com/articles/usability-tip-dont-make-me-search-for-search