



Matching New Technology to Real User Needs

Libraries continue to encounter a steady stream of new web-based tools, such as AI chatbots embedded in library websites, collaborative whiteboards for instruction, analytics dashboards promising insight into user behavior, and next-generation discovery systems marketed as transformative. As early technology adopters, libraries are often eager to experiment. Yet the most successful technology implementations are rarely driven by what is newest or most impressive.

Instead, the most impactful uses of library technology are driven by clearly-articulated user needs. At its best, library technology is not about novelty or trend-chasing, but about selecting tools that are useful, equitable, and sustainable for the communities we serve. Innovation matters—but only when it solves real problems.

Start with the problem, not the product

One of the most common missteps in adopting technology is starting with a solution in search of a problem. Vendors promise efficiency, personalization, or transformation, but without a clear understanding of user workflows, challenges, and institutional priorities, even the most advanced tools can go unused. For example, before implementing an AI-powered chat tool on the library website, libraries should ask whether users are struggling with basic navigation, citation support, or research confidence, and whether automation meaningfully addresses those challenges or simply adds another layer of complexity.

Libraries that successfully integrate technology begin by asking grounded questions:

- What barriers are users encountering?
- Where do students, faculty, or staff experience problems in their work?
- What tasks consume time without adding value?

Whether the issue is difficulty navigating research tools, lack of access to specialized software, or inconsistent support for online learners, technology should be a response to a clearly articulated need, not an assumption.

Listening as a form of innovation

Matching technology to user needs requires deep listening. Usage statistics tell part of the story, but qualitative input, focus groups, reference interactions, instruction feedback, and staff observations, often reveal what data alone cannot. Libraries using web analytics dashboards, embedded feedback forms, or UX survey tools often find that low engagement with a platform reflects unclear relevance, accessibility barriers, or insufficient training rather than lack of interest.

Libraries that treat assessment as an ongoing conversation, rather than a one-time evaluation, are better positioned to adjust tools and services before frustration sets in. In fact, this ongoing conversation can help the library create and adjust training opportunities, guides, and marketing materials to address potential concerns.

Importantly, listening should include voices that are often underrepresented in decision-making. Online learners, first-generation students, adjunct faculty, staff, and users with disabilities often experience technology differently, and their perspectives can prevent costly misalignment. Feedback from these groups could help identify problem areas that are invisible in aggregate usage data but critical to technology alignment.

Right-sizing technology

Not every need requires a complex or expensive solution. Sometimes the best match is a modest tool paired with thoughtful implementation. A light-

weight shared scheduling system, a thoughtfully-configured open-source platform, or a targeted automation process, can deliver more value than a large-scale system that overwhelms users and staff.

Right-sizing technology also means considering staff capacity. New tools bring new maintenance, training, and support demands. When libraries align technology choices with available expertise and workflows, adoption is smoother and outcomes are stronger.

Implementation is where alignment succeeds or fails

Even the most well-chosen technology can falter without intentional rollout. Clear communication about *why* a tool is being introduced, *how* it connects to user needs, and *where* support can be found is essential.

Web-based tools are often assumed to be intuitive simply because they run in a browser, yet even familiar interfaces benefit from clear communication, short tutorials, and point-of-need guidance. Training should be practical, role-based, and ongoing, not limited to a one-time launch. Libraries that invest in staff confidence and user fluency see technology become embedded in daily practice rather than remaining an optional add-on.

Libraries that pair new platforms with role-based training, such as quick-start guides for students and workflow-focused sessions for staff, are far more likely to remain sustainable. Equally important is the willingness to adjust tools and technology that no longer serve their purpose. Letting go of underperforming technology is not a failure; it is evidence of responsible stewardship.

Technology as a relationship, not a replacement

Ultimately, technology does not replace the human role of libraries; it amplifies it. When tools are thoughtfully matched to user needs, librarians spend less time troubleshooting systems and more time teaching, partnering, and supporting learning and research.

In an era of rapid technological change, libraries do not need to adopt everything new. They need to adopt what matters. By focusing technology deci-

sions based on thoughtful assessment strategies, mission-driven priorities, and listening to feedback, libraries can ensure that innovation remains purposeful, inclusive, and impactful.

When web-based tools handle routine tasks such as appointment scheduling, data retrieval, or triage questions, librarians gain time to focus on instruction, research consultations, and partnership-building—work that technology alone cannot replace. The goal is not to keep up with technology, but to ensure technology keeps up with our users.

Conclusion

As new web-based tools continue to emerge, libraries face no shortage of options. The challenge is not keeping pace with every innovation but choosing technologies that genuinely reduce complications for users and staff. Tools that are thoughtfully selected, carefully implemented, and regularly reassessed are far more likely to deliver lasting value than those adopted in response to trends alone.

Ultimately, the goal is not to build a more technologically complex library, but a more responsive one. The most successful library technologies are not those that demand attention, but those that help users accomplish their work with less effort and greater confidence.

Selected Reading

- Ehrenpreis, M., & DeLooper, J. (2025). *Chatbot assessment: Best practices for artificial intelligence in the library*. *portal: Libraries and the Academy*, 25(4), 671-702. <https://dx.doi.org/10.1353/pla.2025.a971028>.
- Szpunar, R., & Bradley, E. (2023). *Conducting a user needs assessment through the consortia: Pooling resources to Examine Student and Faculty Habits*. *College & Research Libraries*, 84(1), 69-84. <https://doi.org/10.5860/crl.84.1.69>.