SUSTAINABILITY OF DIGITAL LIBRARIES

INTRODUCTION

In an increasingly digital world, digital resources provide several advantages – they're available at any time and in any location and are incapable of being lost, stolen or damaged (Anderson, 2013). Digital libraries are increasing in popularity – there’s even a purely digital library in Bexar County, Texas (Hays, 2014). Even with no physical collections to consider, digital libraries that provide these resources to patrons must still consider the issue of sustainability. Although a variety of researchers have developed their own criteria for what makes a library sustainable, a review of relevant literature reveals three main themes with regard to digital libraries: usability, usefulness and cost.

Before a library can tackle the issue of sustainability, it must meet three pre-requisites: 1.) It must have a clear mission, 2.) It must have a dedicated staff with high morale; and 3.) It must have financial control (Michnick, 2015). The mission must be clear about who it serves, what it offers, and takes future goals into account. The staff must be committed to forwarding the mission and goals of the library, and the library needs to have control over it’s own financial resources. (Michnick, 2015). Without these three characteristics, sustainability becomes much more difficult to implement.
USABILITY

According to the Digital Public Library of America, “ebook apps are often complicated for new users, and the selection of ebooks a mere fraction of what is on the physical shelves (2016). With digital libraries already faced with availability issues, it’s imperative that their collections are usable. Many libraries and websites have useful and valuable content, but accessing the information is challenging. Simple usability tests can be used to solve a few problems with little effort, however, user tests can reveal deeper issues that need to be resolved (Hansen, 2012). Your collection may be useful, affordable, and fill a need in the community, but if your users cannot use it, sustainability cannot be attained.

The most important factor in usability is ensuring that materials are available continuously. According to Havelka, “24/7 desktop delivery of content has become a standard user expectation (2012).” In an effort to make their digital services more usable for their patrons, the Leonard Lief Library of Lehman College decided to loan e-readers and e-books. Once the program was implemented, however, they discovered that their program had very low usage. E-readers were circulated a 10 times in two semesters. Students cited difficulty in using the e-readers and downloading content as chief reasons that they did not use the devices (Havelka, 2012). This example shows that usability is crucial to the success of the digital service provided, and a necessary requirement for sustainability.
USEFULNESS

Usefulness is an obvious requirement of digital libraries. Does this library or collection fill a need in the community? An excellent example of a library filling a need in the community is the Oregon Sustainable Community Digital Library. Several different agencies in the Portland, Oregon area collaborated to create a collection of city planning documents that could be accessed any time without traditional barrier of location (Jackson, 2006).
The librarians who spearheaded the effort took great care to ensure their collection was sustainable. Ten years later, in 2016, the collection is still available online and accessed all over the world (Oregon, 2016).

Digital collections can also bring about a change in the role of a librarian. The librarian’s role must change in order to remain useful. In a 100% digital library in Florida, librarians no longer maintain the stacks, but instead help students in using digital materials (Stein, 2014). Freed of their collection maintenance responsibilities, librarians are able to engage in community outreach and marketing. There is a potential downside to this freedom. More requirements, time commitments and competencies may be required (Michnik, 2015).
Another important issue affecting usefulness is that of availability. If the resources are not available digitally, then the collection is not useful or sustainable. According to a study by Anderson and Pham, only about 33% of the collection they tested was available electronically (2013). Part of this low level of availability could be related to the preference for print over digital when reading in depth, cover-to-cover, or skimming. A survey by Roger C. Schoenfield indicated that the majority of faculty members surveyed preferred print copies of scholarly monographs for reading cover-to-cover in depth, reading sections in depth, comparing monographs and skimming (2013).

COST CONSIDERATIONS

As with most library issues, cost is a significant factor in what sources and services are made available to the public. Digital and hybrid libraries are no different. Budget cuts and lack of space can cause even useful and usable libraries and collections to close. Cornell University saw 5 departmental libraries close due to budget restrictions and space needs (Wilson, 2015).

Cost of technological equipment and hardware is the first obstacle to be tackled. For example, one purely digital library in Bexar County, Texas, has “600 e-readers, 200 child-enhanced e-readers, 48 computer stations, 45 iPads, ten laptops, and four interactive surface tablets (Hays, 2014).” Technology develops at a rapid
pace, and devices can become outdated quickly. Well-chosen technology is the cornerstone of sustainability in the digital library environment (Hansen, 2012).

Perhaps the biggest and most frustrating challenge that libraries face is that of copyright and licensing. E-books in particular post the greatest challenge since many of the titles are made available on dedicated devices such as the Kindle or Nook, and these licenses do not allow library use (Anderson, 2013). Libraries who do not take sustainability into account when agreeing to certain copyright and licensing restrictions could end up losing years of content that they’ve already paid for. “Sustainable access provisions ensure that back issues remain accessible even if the current subscription is cancelled (Walters, 2004).” Retaining permanent access to digital collections is imperative for sustainability.

With the ease of access to digital sources comes a cost so significant that some libraries consider restrictions on what content is available. The issue of cost is more complicated than just a price point. If the library is public in nature, they may not be in control of their own financial resources and rely on politicians or state agencies to set their budgets (Michnick, 2015).

ENVIRONMENTAL SUSTAINABILITY

No study would be complete without taking environmental sustainability into consideration. According to Gobinda Chowdhury, there three types of sustainability: economic, social and environmental (2014).
Economic and social sustainability have been addressed in the cost and usefulness portions of this literature review.

Digital libraries do not necessarily make the same kind of impact as a traditional library due to their digital nature. However, there are some considerations. First, is the issue of space. How is space being used? As collections shrink and go digital, many spaces are being repurposed for community meeting places as seen with the libraries previously mentioned at Cornell (Wilson, 2015). Chowdhury indicates that all information communication technologies account for 2% of global greenhouse gasses (2016). Cloud computing can help lessen the
environmental impact of digital libraries (Chowhury, 2016). Another consideration is that of printing. Some people simply prefer printed copies of things. In the case of the 100% digital academic library in Florida, it is not paperless, which will provide some sort of environmental impact, even though the students are encouraged not to use the printers much (Stein, 2014).

CONCLUSION

Sustainability in digital libraries will continue to be an issue in a world where technology advances as rapidly as it does. Even hybrid libraries need to focus their efforts on the sustainability of their digital services and collections. Anything else, in this technological landscape, would be a waste of time and money.
Shouse – Literature Review

References:


