

Top Ten Technologies for Academic Libraries

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It is becoming increasingly important for libraries to keep up in the rough and tumble world of emerging technologies. This is especially true for academic libraries that often work with professors and students utilizing new and advanced technologies to achieve their professional or academic goals. However, finding the time to locate these technologies can be difficult. The following list has been compiled to help ease this process and to inform our fellow librarians on some of these technologies.

Google Analytics

<http://www.google.com/analytics/standard/>

Google Analytics is a program for librarians that can track many details of the library's website including the route users take to reach it and what parts of the website get the most traffic. Not only can this program be used to identify and eliminate unused or underused sections of the website, it can also help track which promotions have the most impact.

In Barba, et al. (2013), Google Analytics was used to determine that the new popup window for a help service at Texas Tech University Libraries needed to be removed and redesigned. Farney and McHale (2013) explain in short detail the benefits of using Google Analytics within a library setting provided the staff is willing to take time to learn and implement it properly.

Wordle

<http://www.wordle.net/>

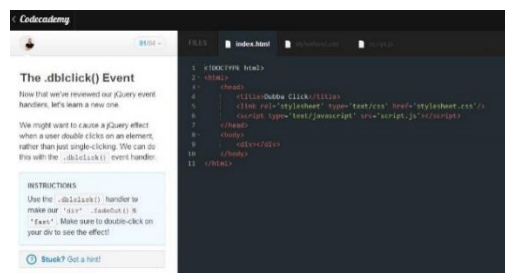


Wordle is an online program that allows users to create a "word cloud" as they

call it from text they put into the program. This word cloud will make words that have been used more often larger than the words around them. One benefit of Wordle is through advertising. Any promotional material that includes text can be put into Wordle. The generated word cloud will highlight if a word has been used too often or not often enough. This word cloud can be used as promotional material on the website or on other materials such as bookmarks as well. The program can also be used for the same reasons to review papers written by the students who frequent the library. The writer can read over, and possibly correct, the paper if a word comes up too much or too little.

Code Academy

<https://www.codecademy.com/>



Code Academy is a free online tool that can help librarians

acquire coding skills, and offers hands on training in coding programs like Java, SQL and Python.

Each course is broken up into smaller units that can be taken at the user's discretion.

In "Cracking the Code", Matt Enis (2013) writes of several librarians who are finding even the most basic understanding of coding useful in their work by using it to do such things as make search results more intuitive to users, talk with professionals about the website and re-work open source programs for library uses

Schema

<http://www.schema.org>

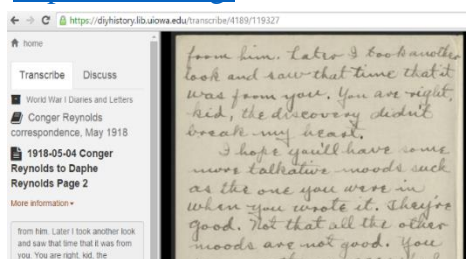
Schema is a cooperative online community with the goal of creating a system for structuring data on the internet. Schema uses Microdata, RDFa, or JSON-LD formats along with particular vocabulary to add information to Web content. According to one academic reviewer of the site, "Webmasters will benefit from a shared mark-up vocabulary that facilitates searching and displaying results on the web.... Schema.org excels in the organization and navigation of content" (Wong, 2015, 229-230).

For example, using Microdata can allow for search engines to understand context that a reader already knows. If the author or a webpage is discussing Peanuts, the comic strip, then they can embed using microdata, the vocabulary structure that will allow search engines to determine the context and properly display the information in searches!

For academic libraries and librarians, this concept is important in a changing world where alphabetizing is no longer the best way to organize. Bibliographic data is everywhere, and being able to apply these types of schemas to point patrons in the correct direction with search engines.

Omeka 2

<http://omeka.org/>



Omeka is an open-source web publishing platform for institutions

like libraries, museums, and archives. Omeka is free and allows for these types of institutions to share their collections in a digitized web-based way. In one case study on Omeka's use at the University of Virginia, the author states that "the sheer fact of so many more coders working on Omeka meant that crowdsourcing factors emerged," while other digital tools didn't utilize crowdsourcing and had overworked, single coders (Alexander, 2013, 202).

One example of how Omeka is used at an Academic Library is the University of Iowa's DIY History Project – a crowdsourcing project. The library has so many digitized documents that the librarians do not have enough time to catalog or transcribe them all, so they opened them up to public! Using Omeka, ANYONE can sign in, transcribe, read, and comment on one of the digitized documents. Omeka allows for libraries to customize their theme and use particular plugins to make it unique to them and their needs.

LibraryBox

<http://librarybox.us>

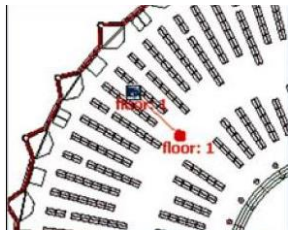


LibraryBox is a small, self-contained, portable download-only digital library. Consisting of a wireless hotspot (router), a flash drive,

and an optional battery pack, LibraryBox can be used as a repository of various library materials, including eBooks, streaming audio/visual media, proprietary databases, magazines, games, etc., accessible by any device with wireless capabilities and customizable by the individual library. Although mainly educators and public libraries have dabbled with this technology, academic libraries may benefit from the opportunities LibraryBox offers for outreach, marketing, and providing to underserved areas. The Barr Memorial Library in Fort Knox, Kentucky, in particular, has reported a wildly successful marketing and outreach program using LibraryBox (Steinmacher, 2015). With an app-like display, customizable framework, and

portable nature, the potential for LibraryBox to be of use to academic libraries is endless.

SmartLibrary



How is the Classicist going to easily find information on prison librarianship? With SmartLibrary! Developed at the University of Oula, Finland, SmartLibrary is a context-aware mobile service

integrated with the library's OPAC. Accessible via terminal or wireless device, this tool provides a color-coded map of the library with the quickest route to the desired book from the searcher's location within the library.

SmartLibrary v1.0

While field testing SmartLibrary at the University of Oula, developers noted that the ease of locating books with shelf classification was conversely proportional to the experience of the searcher (Ojala, 2010, p. 7). That is, researchers unfamiliar with the classification system, library layout, etc., can benefit greatly from a program that can orient them within the library and point them in the right direction. Although SmartLibrary is still under development, when it is made available, it will be an invaluable tool for library instruction and new researchers.

3-D Printing

The 3D printing trend has taken root in public libraries, but is not yet integrated into academic curricula at the university level (Ryan & Grubbs, 2014, p. 11). Consisting of a 3D printer, material to print the item (cornstarch, ABS plastic, polymer), CAD software, and corresponding computer terminal, scanner, etc., 3D printing introduces a new multidisciplinary experience – combining computer skills, design, and whichever subject the student studies.

As such, the addition of a 3D printer to an academic library, the interactive and interdisciplinary hub of the university, allows the library to initiate a truly collaborative relationship with various departments. At Stetson University, the 3D printer and the pilot

collaboration with the chemistry department served as a gateway technology for other departments and emerging technologies. (Ryan & Grubbs, 2014, p. 14). The University of Nevada-Reno, the first university library to integrate a 3D printer, has also had extraordinary success in collaborating with multiple departments to incorporate this technology with the curriculum (Colgrove, 2014).

LibAlerts

<http://www.westlakelibrary.org/libalerts/?q=node/2>

LibAlerts is a highly rising system that allows an organization to subscribe to different authors and receive alerts and updates on new material that they may release. Developed with the use of the Drupal-based website, it was launched in June 2012, and created by the WestLake Porter Public Library (Weaver, 2015, pg 1).

The testing showed that once the author or the work was in the MARC system, the text alert would go out using the SMS gateway used in the email system. This program was staff tested and those staff with cell phones also received the text alerts. After a brief testing period a survey was taken to see if the staff felt it was beneficial in a library setting. While the number of staff testing the system was only fifty during the first run, interest during the testing was raised. Forty of the fifty testers added 234 authors, averaging 5.84 per respondent. The survey results stated that 38 of the testers stated they would use this system (Weaver, 2015, pg 3-5).

This would prove to be beneficial in a library setting, providing academic faculty with up to date information on not just books, but also periodicals and academic journals.

LibGuides

libguides.com

LibGuides is an online tool made for librarians that allows them to transfer and organize online data for patrons to see and use. It is currently being used in some academic libraries for subject guides, teaching research and information literacy skills. Few libraries post or create course level research guides

for their students because it requires a high level of skill and maintenance along with web- development skills that many librarians may not possess. LibGuides uses a combination of web Development tools to create a system that librarians of any level

of technology knowledge can use. Firsthand knowledge of html or coding scripts is not required (Mokia, 2012, pg. 2). With this tool, libraries can create guides that can benefit students and teachers alike in research and study.

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