

Pivotal Technologies for the Public Library

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Ancestry.com is the world's largest online resource for family history with approximately 2.7 million paying subscribers across all family history sites. The mission of Ancestry.com is "to help everyone discover, preserve, and share their family history."

Due to the emergence of different shows and interest groups focused on genealogy, mobile applications utilizing this new interest will thrive in public libraries, especially those with high genealogy foot traffic. See Ancestry.com for more information.

Patrons often express interest in being able to research family history in the library. Providing access to these sites is useful to the patrons and can also help the librarians build relationships with patrons as they help with research tips. One example of a library that utilizes this is the New York Public Library.



Cloud computing can be defined in a number of ways, making it confusing for librarians to understand what is available and what it delivers. Although computer scientists and technologists may have a strict definition of cloud computing involving "on-demand network access to a shared pool of configurable computing resources" (see the *NIST Definition of Cloud Computing*), for non-IT librarians it's enough to think about cloud computing as library data and services hosted beyond the library's walls and accessible via the web.' Edward Corrado and Heather Moulaison wrote an interesting [article](#) describing the pros and cons of cloud computing.

Cloud computing allows libraries to reduce the need for both digital and physical on-site storage. ILS systems, as well as collections of library resources, can be stored on the cloud to be accessed by librarians or patrons at their leisure. Marshall Breeding has also written a book entitled *Cloud Computing for Libraries*, which is available electronically through the University of Missouri library. Jim Lynch has written an [informative article](#) that is helpful in guiding library patrons through the world of cloud computing. For more information about cloud computing, see [this article](#) by Lee Rainie and others that pulls together ideas from several librarians. For more information about adopting cloud computing for use in your own library, see [this article](#) by Lili Luo.



Crowdsourcing is a way of obtaining information or input on a particular task or project from a large population of individuals, typically via the internet. Many libraries around the nation are utilizing crowdsourcing in the form of “transcribing handwritten documents, indexing genealogical records, identifying people and places in photos, correcting optical character recognition (OCR) errors in digital newspaper collections, tagging or captioning historical images, adding pictorial content to maps, transcribing oral histories, and much more” (Zastrow 21).

In January 2008, the [Library of Congress](#) started a crowdsourcing project on Flickr where participants added tags and comments to digitized images to assist in accessibility. The [University of Iowa](#)'s DIY History project enlists the help of internet users to transcribe handwritten Civil War diaries, recipe collections, railroad correspondence, and financial papers. The [New York Public Library](#) encourages patrons to “Kill time, make history” by assisting with an array of crowdsourcing projects via NYPL Labs. Visitors to this website are able to transcribe historical menus, cross-reference U.S. Census data with old phone books, digitally align historical maps with present-day locations, and much more.



E-readers are an important technology for library patrons. Some patrons will prefer to read material from an electronic device. Other patrons could be curious about these devices, but have not had the opportunity to experiment with them. Libraries can meet these needs by providing e-readers for checkout. There are many types of e-readers to choose from, ranging from Nook and Kindle, to iPads and other tablets. E-readers are basic devices that allow the user to read an electronic book. Tablets offer more versatility with internet access. For information about the differences between the various devices, see this [informative article](#).

E-readers are as much a part of the library landscape as bound books. Librarians will find patrons have very definite ideas about their preference when it comes to reading books. Some patrons will be firm in wanting to read only print books, while others will have whole-heartedly jumped on the e-reader bandwagon. To effectively reach all patrons, libraries need to be familiar with the many e-readers available and be ready to help patrons with usage of the devices and troubleshooting. The Philadelphia Free Library has embraced this challenge and offers classes to their patrons in learning how to use devices and choosing the best e-reader. For data on this program, see information written by [Laura Cofsky](#). Charity Vogel has also described how libraries in the Buffalo, NY area are [offering labs](#) for patrons to provide education for using the devices. Overdrive is a major platform for offering e-books to public library patrons. By searching on the [Overdrive site](#), users are able to find information about the many types of e-readers to help with the decision-making process.

ESPRESSO BOOK MACHINE

“The patented Espresso Book Machine® (EBM) makes a paperback book in minutes, at point of need. Through its EspressoNet® digital catalog of content, books can be ordered online or onsite at bookstores, libraries, and non-bookstore retailers. Over seven million in-copyright and public-domain titles are available on the network. The technology is also ideal for self and custom publishing.”
[On Demand Books](#) has useful information about EBMs.

Providing the opportunity for patrons to print their own books is an exciting frontier for libraries. An Espresso Book Machine not only makes that possible, but also opens the door to libraries for patrons to be able to purchase and publish a book from other sellers right in the library. In Kansas City, MO, [Woodneath Library](#) (a branch of the Mid-Continent Public Library system) recently purchased an EBM. These machines are being purchased in libraries across the [country](#). The journal, *Library Hi Tech*, has more [information](#) about using EBMs in the library. Rick Anderson has written a comprehensive [article](#) on EBM usage at the Marriott Library at the University of Utah. For more information about EBM usage in libraries, see [this article](#) by Jennifer Koerber and [this article](#) by David Rapp.



[Google Glass](#) is a type of wearable technology with an optical head-mounted display that was developed by Google with the mission of producing a mass-market ubiquitous computer. Google Glass displays information much like a smartphone via a hands-free pair of glasses. Compatible applications include pre-existing Google essentials as well as Glass-tailored facial recognition, translation, exercise, and cooking applications, among many others.

Google Glass is an emerging technology that may be out of reach to the general public, and libraries have begun to close that gap. Unlike retail stores, libraries are able to provide unbiased advice and support on a variety of devices and technologies. Technological literacy is another form of literacy, and libraries have always been in the business of developing an informed and literate community. The Hastings Public Library in Hastings, Nebraska, purchased a pair of Google Glass to place some very expensive technology in the hands of an entire community and to change the conversation about the future of libraries and library services. The staff at [Hastings Public Library](#) have taken their Google Glass onto local TV stations, in front of assembled patrons during in-library programs, and to neighborhood schools, clubs, and committees. There are [several apps](#) available for use with Google Glass. CNN News Alerts is an app that lets the user subscribe to several different topics and pick the frequency for viewing the topics. Field Trip is an app that connects the user with over 100 publishers to give information about local history and architecture.



“MakerBot's [Thingiverse](#) is a thriving design community for discovering, making, and sharing 3D printable things. As the world's largest 3D printing community, we believe that everyone should be encouraged to create and remix 3D things, no matter their technical expertise or previous experience. In the spirit of maintaining an open platform, all designs are encouraged to be licensed under a [Creative Commons license](#), meaning that anyone can use or alter any design.”

Thingiverse is the companion website for the Makerbot company. Makerbot is the premier developer in the creation and sales of 3D printers for the library market. The companion website is very useful since all items are openly shared and able to be printed with the 3D printers. The site is easy to use with a visible search bar at the top of the page. Users can print items, makes comments, and add their own items to the site. For an example of how a library is using 3D printers, look at [this article](#) about the Chadron Public Library in Nebraska.



By utilizing mobile hotspots, libraries are finding ways to provide internet access for their patrons. This access could be as simple as providing for checkout a flashdrive that has prepaid wifi. This is helpful for patrons that are not able to purchase their own internet service and for patrons that live in rural areas without access. Some phone providers have initiated this service, such as, Verizon and AT&T. [AT&T](#) has a card that can be refilled called GoPhone Mobile Hotspot. [Verizon](#) offers several devices to provide access.

Libraries have an opportunity to provide a great service to their patrons in implementing ways to offer off-site internet access. In the 21st century, it is hard to complete tasks and do research without access. By giving the patrons a way to connect in the comfort of their own home, libraries can meet an important need. Libraries can partner with community business groups in generating the capital to purchase mobile hotspots. In St. Louis, Francis Howell School District partnered with the [Innovative Technology Education Fund](#) group to fund such a project.



[Pinterest](#) is a social network that allows users to share and discover interests by posting (known as 'pinning') images or to their Pinterest boards. A board is a collection of pins with a common theme, such as, "gardening", etc. Users are also able to browse what other users have pinned.

Pinterest has many uses for a library. A library could create boards for each of the many different book genres by pinning book cover images of similar titles into a board. The library could also create boards for favorite authors, upcoming book to movies, following other library pinterest boards, etc. Pinterest is a great social media tool that fosters camaraderie between the library staff and the patrons. For more information on using Pinterest in the library, along with other social media platforms, Kristin Thomson wrote a [detailed article](#), along with Kristen Purcell and Lee Rainie. Irene McDermott has written about [using Pinterest](#) in the library and has shared information about how other libraries have found successful uses for the site. The [Omaha Public Library](#) uses Pinterest to inform patrons with ideas, information and innovative services. The [New York Public Library](#) also makes good use of Pinterest by inspiring lifelong learning, advancing knowledge, and strengthening communities.



[Twitter](#) is an online social networking service that enables users to send and read short 140-character messages called "tweets". Registered users can read and post tweets, but unregistered users can only read them.

Twitter is a great way for libraries to connect with their followers about the latest books, emerging technology, news about authors and the publishing world, and upcoming local events at the library. To keep the site fresh and useful, staff members need to be designated to post tweets and monitor the site. An unused Twitter account is detrimental to the library. For ideas about using Twitter in the library, Sonja Cole wrote an informative article in the June 2009 issue of *Library Journal*. Britta Krabill wrote an article in the Fall 2009 issue of *Florida Libraries* describing the use of Twitter at the West Palm Beach Public Library. How about Twittersphere? Lyndelle Gunton and Kate Davis have tips to share about using Twitter as a *Reference Services Review* marketing tool in the public library. These tips are in the May 2012 issue of . To see how some public libraries are using Twitter, see and follow the [Public Library Association](#), the [New York Public Library](#), the [Omaha Library](#), and [Lincoln City Library](#).

In conclusion, as you can see, there are many digital tools to make public libraries more effective. For more information about these technologies, or digital tools in general, see [this article](#) by Kathryn Zickuhr, Lee Rainie and Kristen Purcell.

Works Cited

- 2013 Innovators. (2013, January 1). Retrieved December 2, 2014, from <http://innovteched.com/2013-innovators/>
- Anderson, R. (2010). The Espresso Book Machine: The Marriott Library experience. *Serials*, 23(1), 39-42.
- Breeding, M. Cloud computing for libraries. (2012). Chicago : ALA TechSource, an imprint of the American Library Association.
- Cofsky, L. (2012, March 19). For those still wary of ereaders, free library lends a hand. *Philadelphia Inquirer, The (PA)*.
- Cole, S. (2009). 20 ways for librarians to use Twitter. *Library Journal*, 134(11), 25.
- Corrado, E., & Moulaison, H. (2012). The library cloud pros and cons. The Digital Shift. Retrieved December 2, 2014, from <http://www.thedigitalshift.com/2012/03/software/the-library-cloud-pros-and-cons/>
- DIY History: Help build the historical record by doing it yourself. (2012, January 1). Retrieved December 2, 2014, from <http://diyhistory.lib.uiowa.edu/>
- EBM Locations: Map View. (2013, January 1). Retrieved December 5, 2014, from http://www.ondemandbooks.com/ebm_locations.php
- Get help with ebooks from your library. (2014, January 1). Retrieved December 5, 2014, from <http://tinyurl.com/nypk8f6>
- Gunton, L. & Davis, K. (2012). Beyond broadcasting: Customer service, community and information experience in the Twittersphere. *Reference Services Review*, 40(2), 224-227.
- Henry, A. (2014, February 16). Five Best Mobile Hotspots. Retrieved December 2, 2014, from <http://lifehacker.com/five-best-mobile-hotspots-1523254435>

- Kenning, A. (2011). The Espresso Book Machine: A change agent for libraries. *Library Hi Tech*, 29(1), 62-72.
- Koerber, J. (2012). Express yourself. *Library Journal*, 137(16), 23-26.
- Krabill, B. (2009). Tweeting in the stacks: Why public libraries should embrace Twitter. *Florida Libraries*, 52(2), 14-15.
- Luo, L. (2012). Reference librarians' adoption of cloud computing technologies: An exploratory study. *Internet Reference Services Quarterly*, 17(3/4), 147-166.
doi:10.1080/10875301.2013.765824
- Lynch, J. (2012, February 23). Account options. Retrieved December 5, 2014, from <http://tinyurl.com/kxopxmb>
- McDermott, I. (2012). Pinterest for libraries. *Searcher*, 20(4), 7-45.
- NYPL Labs. (2014, January 1). Retrieved December 2, 2014, from <http://www.nypl.org/collections/labs>
- Rainie, L., Anderson, J., & Connelly, J. (2014, October 9). Elaborations: More Expert Responses. Retrieved December 5, 2014, from <http://www.pewinternet.org/2014/10/09/elaborations-more-expert-responses-2/>
- Rapp, D. (2011). Print-on-demand meets public libraries. *Library Journal*, 136(20), 22.
- Rempp, K. (2014, October 7). Chadron Library introduces 3D printing : Community. Retrieved December 5, 2014, from <http://tinyurl.com/n7uakdv>
- Rundle, J. (2014). Google Glass in the library. *Nebraska Libraries*, 2(2), 9-10. Retrieved December 2, 2014, from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1007&context=neplib>
- Search for a Book. (2013, January 1). Retrieved December 2, 2014, from http://ondemandbooks.com/ebm_overview.php

Thingiverse - Digital Designs for Physical Objects. (n.d.). Retrieved December 2, 2014, from

<http://www.thingiverse.com/>

Thomson, K., Purcell, K., & Rainie, L. (2013, January 4). Section 4: Social Media Use. Retrieved

December 5, 2014, from <http://www.pewinternet.org/2013/01/04/section-4-social-media->

[use/](http://www.pewinternet.org/2013/01/04/section-4-social-media-use/)

Uswak, I. (n.d.). Google Glass Application List. Retrieved December 2, 2014, from <http://glass->

[apps.org/google-glass-application-list](http://glass-apps.org/google-glass-application-list)

Vogel, C. (2012, October 20). Labs will offer eReader help to library patrons. *Buffalo News, The* (NY).

What Is the Difference Between an E-Reader and a Tablet? (2014, April 10). Retrieved

December 2, 2014, from <http://tinyurl.com/kes4pcv>

Woodneath Press. (2014, January 1). Retrieved December 5, 2014, from

<http://www.mymcpl.org/about-us/woodneath-press>

Zastrow, J. (2014). Crowdsourcing cultural heritage: 'Citizen archivists' for the future. *Computers in Libraries*, 34(8), 21-23.

Zickuhr, K., Rainie, L., & Purcell, K. (2013, January 22). Part 5: The present and future of libraries. Retrieved December 5, 2014, from

<http://libraries.pewinternet.org/2013/01/22/part-5-the-present-and-future-of-libraries/>