

## New and Noteworthy

### Keeping on Top of Tech

Jennifer A. Bartlett

*New technologies will change an already evolving situation in libraries. Librarians can be excused for empathizing with the Red Queen's statement to Alice in Through the Looking Glass, "It takes all the running you can do to keep in the same place." Keeping up-to-date with new technology is bewildering enough for those familiar with the computer industry.<sup>1</sup>*

--George A. Simpson

"It takes all the running you can do to keep in the same place." Does that sound familiar? In addition to all your other responsibilities, every day brings a new technological advance, another app, one more new tech startup, and it seems impossible to keep up with it all. Take heart, however! Librarians have been on the forefront of investigating new uses of technology for a while. George A. Simpson, author of the above quotation, was writing in 1978, not in 2017. His topic? Microcomputers in library automation.

Forty years ago, librarians were dealing with new technologies made possible by the rise of "micros" and the Internet: online public access catalogs, online abstracting and indexing services, and resource sharing.<sup>2</sup> Today, it's coding, drones, virtual reality, and Drupal. As a library leader, you are expected to be aware of established and emerging technologies. How do you discover new technologies affecting the information landscape, and more importantly, decide if they are appropriate for your institution? Which technologies should you introduce to your patrons, and how do you support and train your staff? This month's column presents key websites, journals, and other resources to help you keep on top of tech.

ALA TechSource, an imprint of ALA Editions, publishes the very useful *Library Technology Reports* series, offering news and comments on tools, services, and products.<sup>3</sup> Published eight times a year, each issue is an in-depth analysis on one topic. The January 2017 issue, for example, contains four essays from librarian Jim Hahn on "The Internet of Things," or IoT, and its applicability to location-based services in libraries (the IoT refers to physical devices with embedded information technology that interacts with their environment and communicates through networks. Examples of IoT devices are smart appliances, networked home security systems, and fitness trackers). Other recent topics in *Library*

*Technology Reports* include social media optimization, Google Analytics and Google Tag Manager, and mobile computing. In addition to subscriptions, individual issues are available for purchase through the ALA Store and other online retailers.

ALA TechSource also publishes the monthly *Smart Libraries Newsletter*, news and analysis on library automation, products, and industry trends from Marshall Breeding, noted library technology consultant and author.<sup>4</sup> *Smart Libraries Newsletter* is only one of many insightful, well-researched resources from Breeding, who also writes “Systems Librarian,” a monthly column in the journal *Computers in Libraries*<sup>5</sup> (more about this journal below) and also maintains *Library Technology Guides*, a website focusing on technology products and services, key companies and organizations, and industry reports.<sup>6</sup> The site offers a wealth of news and data geared toward those making technology decisions in libraries, for instance, industry developments, a library tech company directory, and an Annual Perceptions Survey gauging library satisfaction with technology products and vendors. The site's library directory, [libraries.org](http://libraries.org), is a compilation of information on the specific integrated library systems, link resolvers, and other products used by various libraries, and is searchable by location and type of library. A quick way to keep up with the frequently updated information on *Library Technology Guides* is to register as a site member, which is free. Registered users receive updates on major new resources and industry news announcements, and advanced searching in the library directory.

A mainstay in library technology news is the magazine *Computers in Libraries*, whose mission statement says, in part, “CIL is written by librarians for librarians, and it’s about technology all the time.”<sup>7</sup> Published by Information Today, Inc., CIL is aimed at library professionals working in all types of library settings – public, academic, corporate, special, archives, museums – and publishes news on library technology industry trends and their practical applications. Each issue typically consists of several feature articles, a news update, book reviews, and columns by thought leaders including Marshall Breeding (“The Systems Librarian”), Terence K. Huwe (“Building Digital Libraries”) and Jessamyn West (“Practical Technology”). In keeping with its practical focus, CIL actively encourages submissions from practicing librarians and posts an editorial calendar listing upcoming issue themes. For example, the April 2017 issue’s focus is “Hot Devices,” covering 3D printers, RFID, self-service stations, and more.

Another excellent, if somewhat dated resource on technology trends is the Center for the Future of Libraries website, part of ALA’s Libraries Transform campaign.<sup>8</sup> From the Center’s description, it “works to identify emerging trends relevant to libraries and the communities they serve; promote futuring and innovation techniques to help librarians and library professionals shape their future; and build connections with experts and innovative thinkers to help libraries address emerging issues.” The website includes trends divided into seven categories: society, technology, education, environment, politics and government, economics, and demographics (or STEEPED). Trends dealing with technology include the Internet of Things (mentioned above), robots, drones, unplugged technologies, and more. Each section is comprised of an introductory overview, the technologies significance to libraries, and a list of further notes and resources. Given the rate at which technologies

change and develop, the information on the site would benefit from updates in some categories, but overall, this is another good place to get started.<sup>9</sup>

Given the rapid rate of technological change, books on tech trends and specific technologies often become obsolete quickly. However, as more libraries adopt these tools and services, even an older snapshot can be useful for background and context. A good example of this type of book is the 2014 title *The Top Technologies Every Librarian Needs to Know: A LITA Guide*, a collection of essays ranging from augmented reality to cloud-based library systems to text mining, edited by University of Michigan Libraries' senior program manager Kenneth J. Varnum.<sup>10</sup> Not specifically a "how-to" guide, *Top Technologies* examines the potential impact of key technologies in libraries over the next few years from the vantage point of the library information technology manager. As Varnum writes,

"In a landscape where tools and trends change in a heartbeat, how can a library technologist know what has staying power and might well be the next big thing, worthy of serious attention?...To avoid deus-ex-machina solutions to all our challenges, I asked the contributors to this book to stick to a near-term future, three to five years away – close enough to be in the realm of the predictable, but far enough away to ensure that the path to the future is not already paved" (vii).

Key to the technology decision-making process are an analysis of institutional strategic goals, future needs, and staff abilities; an understanding of technologies needs to follow an internal assessment of these three factors.

Another foundational guide is the *Neal-Schuman Library Technology Companion: A Basic Guide for Library Staff*, now in its fifth edition and completely revised.<sup>11</sup> Sometimes used in LIS programs, this well-organized title begins with a useful historical overview of technology advances in libraries (from writing and paper to the societal need for technology), and then moves directly into a chapter on "Mission-Critical Technologies," most of which should be familiar to library practitioners: e-books, streaming media, catalogs, discovery systems, laptops, mobile devices, and so forth. Sections on "Technology that Makes Library Services Run" and "Building and Maintaining the Technology Environment in Libraries" offer overviews on various technologies in public service (library websites, social media, technology in staff development, and makerspaces) and how to keep these systems running. Of particular interest is the last section, which is devoted to a future view of library technology, and how to keep up with its constant changes. Generously illustrated with screenshots and tables, the *Companion* also includes questions for review, sources for further information, and a useful glossary of terms.

Last, a fascinating series of monographs on emerging and established technologies in society comes from MIT Press with its "Essential Knowledge" series, a collection of brief, expert overviews of topics ranging from robots to memes in digital culture.<sup>12</sup> Instituted in 2011, the series is intended to present key information technologies in a larger societal context. Of particular interest to library professionals are perhaps the titles on *Information and Society* by Michael Buckland, *Metadata* by Jeffrey Pomerantz, and *Open Access* by Peter Suber.

Still feeling that you're not on top of things? In addition to tech-specific newsfeeds and social media feeds, there are hundreds of general tech trend, news, industry, and product websites, including Engadget (<https://www.engadget.com>), ZDNet (<http://www.zdnet.com>), TechCrunch (<https://techcrunch.com>), Digital Trends (<http://www.digitaltrends.com>), Ars Technica (<https://arstechnica.com>), and The Next Web (<https://thenextweb.com>). Will you be the tech visionary in your library? Maybe not, but at least keeping up with tech won't have to be a full-time job.

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<sup>1</sup> Simpson, G. A. (1978). *Microcomputers in Library Automation: Final Report*. McLean, Va.: MITRE Corp., Metrek Division, 35.

<sup>2</sup> For a good overview of the rise of library technology from the 1960s to the 1990s, see Clifford Lynch's article, "From Automation to Transformation: Forty Years of Libraries and Information Technology in Higher Education," (*EDUCAUSE Review*, January/February 2000), <https://net.educause.edu/ir/library/pdf/erm0018.pdf>.

<sup>3</sup> Current and archived issues of *Library Technology Reports* may be found at <https://journals.ala.org/index.php/ltr>.

<sup>4</sup> *Smart Libraries Newsletter* is primarily focused on industry and vendor news and trends, with occasional news on emerging products. See <https://journals.ala.org/index.php/sln/index> for the current newsletter, and click on "archives" for previous issues.

<sup>5</sup> Breeding's "Systems Librarian" columns are available online 90 days after print publication at <https://librarytechnology.org/systemslibrarian>.

<sup>6</sup> *Library Technology Guides* is at <https://librarytechnology.org>.

<sup>7</sup> See <http://www.infotoday.com/cilmag/default.shtml> for information about *Computers in Libraries*, including tables of contents of current and past issues. Some articles and features are free; others are behind a paywall.

<sup>8</sup> American Library Association, *Libraries Transform*, <http://www.ala.org/transforminglibraries/>.

<sup>9</sup> A more frequently updated resource is the associated "Library of the Future" blog at <http://www.ala.org/transforminglibraries/future/blog>.

<sup>10</sup> Varnum, Kenneth J. (2014). *The Top Technologies Every Librarian Needs to Know: A LITA Guide*. Chicago: American Library Association.

<sup>11</sup> Burke, John. (2016). *Neal-Schuman Library Technology Companion: A Basic Guide for Library Staff*, 5<sup>th</sup> ed. Chicago: Neal-Schuman.

<sup>12</sup> A list of titles currently available in the MIT Press Essential Knowledge Series is available at <https://mitpress.mit.edu/category/series/essential-knowledge-series>.