After years of hand-wringing, today’s studies of library services rarely question whether libraries will survive the digital revolution. Instead, libraries are expected to continue to incorporate new digital technology as they meet the tech needs of their communities. Libraries have also carved out a new role as the platform where people come to create, as libraries become less like grocery stores and more like kitchens.

“We believe the library of the last century is the library of consumption, an institution that reflects the broadcast era of media, the place where you watch, read and listen passively from an armchair. The library of this century is the place where new social relationships are forged and knowledge is created, explored and shared,” according to Jeff Goldenson & Nate Hill, the authors of “Making Room for Innovation” (Library Journal, May 2013).

What changes are we seeing in the role of libraries, and how do social and economic changes have an impact on what libraries do? This report provides a snapshot.
How is the role of the library changing?

To a great extent, our view of the modern public library and its core services was set in the first decade of the 20th century as a direct result of Andrew Carnegie’s funding of 1,689 public library buildings. The core services we came to expect included being a quiet place for study, offering collections of books, newspapers and magazines, and having knowledgeable libraries on staff.

We still expect all of that, of course, but libraries have a much broader range of choices today, as they consider how best to serve their communities. In fact, according to an American Library Association policy brief, libraries should make strategic choices about how they want to deal with four distinct dimensions of library service:

**Physical to virtual libraries.** A purely physical library is no longer realistic. The continuum runs from a physical library with a Web presence and some virtual media to the other end, a purely virtual library. “While most public libraries currently operate close to the physical end of this spectrum of possibilities, almost all are being drawn toward the virtual endpoint by the rapid growth in the availability of digital media over the Internet.”

**Individual to community libraries.** At one extreme is the library focused purely on the needs of the individual, serving them one by one, with a hushed reading room and staff members to help each user, and technology that might be unavailable to most because of cost or difficulty of use. On the other end, libraries provide work and meeting space for community groups, convene groups for projects, hold events of community interest, maintain archives of local records, and may also have technology for use.

**Collection to creation libraries.** One end is a purely collection library, “a place to come to assimilate information, acquire knowledge, enjoy art, and be entertained,” the traditional role of libraries. At the other, the library has become a place where “media conveying information, knowledge, art, and entertainment are created.” It has specialized equipment and facilities to help people create new works, alone or in groups, and its users build on the rich base of material readily available at the library.

**Portal to archive libraries.** This deals with the extent of a library’s ownership of the media its patrons access. At one end, the portal library lets patrons “access a vast range of media resources all owned and hosted by other organizations,” has a minimal physical footprint and can be dispersed through the community. The archive library possesses materials in a range of genres or media, like books, magazines, CDs, etc., and may have archives for specialized collections or topics.

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**Books on paper continue to dominate**

Polls of Americans show that people are still reading books, including books on paper, and that fewer Americans want to reduce the space available for books in libraries. A 2017 Gallup poll found that people still consume books at about the same rate as they did in 2002, before smartphone and social media. Of those surveyed, 73 percent prefer printed books to e-readers (19 percent) or audio books (6 percent). A Pew Research Center poll in 2016 found that 87 percent of those surveyed think libraries should definitely or maybe help patrons learn to use new creative technologies like 3-D printers. Fewer said that books should be removed to make space for them, 24 percent, down from 30 percent in 2015.
What does it mean to say a library is a “platform”?

The Aspen Institute, in partnership with the Bill & Melinda Gates Foundation, convened the Dialogue on Public Libraries to examine the evolving societal role of the public library and to re-envision public libraries for the future. Library leaders involved in the dialogue said that public libraries should maximize their impact by focusing on four areas:

- Central principles of the library’s mission: equity, access, opportunity, openness and participation.
- The library’s capacity to drive opportunity and success in the knowledge-based society.
- An emerging model of networked libraries that promotes economies of scale and broadens the library’s resource reach while preserving its local presence.
- The library’s fundamental people, place and platform assets.

It’s worth a closer look at what the library’s people, place and platform assets include, as the idea of library as platform is relatively new.

People

According to the Aspen Institute report, “The public library is a hub of civic engagement, fostering new relationships and strengthening the human capital of the community. Librarians are actively engaged in the community. They connect individuals to a vast array of local and national resources and serve as neutral conveners to foster civic health. They facilitate learning and creation for children and adults alike.”

Place

“The public library is a welcoming space for a wide range of purposes – reading, communicating, learning, playing, meeting and getting business done,” the report says. “Its design recognizes that people are not merely consumers of content but creators and citizens as well. Its physical presence provides an anchor for economic development and neighborhood revitalization, and helps to strengthen social bonds and community identity. The library is also a virtual space where individuals can gain access to information, resources and all the rich experiences the library offers.”

Platform

A “platform” is defined as a base upon which people create services, data and tools. The library as platform, according to the Aspen Institute, shifts “toward a new vision of the library as a central hub for learning and community connections.”

The public library as platform gives people the chance to “gain access to a variety of tools and resources with which to discover and create new knowledge. The platform enables the curation and sharing of the community’s knowledge and innovation. A great library platform is... an interactive entity that can facilitate many people operating individually and in groups – and support the learning and civic needs of people.”

Chattanooga Public Library 4th Floor

The Chattanooga Public Library’s 4th floor attic space has been turned into a community creative space. The 4th Floor grew from the Chattanooga Public Library itself, the transformation of an overcrowded storage space into a vibrant community Maker space and event venue “that’s now a hot spot in town.”

They called the 4th Floor “beta space” – environments within a larger library ecosystem created to prototype and deploy new ventures. The 4th Floor is intended to transform the library’s organizational culture. The plan is to develop new services in the 4th Floor and implement them in other library departments. Two examples:

- Makerday: 3D Throwdown – an expo introducing 3-D printing technology to the city of Chattanooga. 1,200 people visited the 4th Floor to see everything from hobbyist machines to large-scale industrial models. It established the 4th Floor as the gateway Maker space in the city.
- Creative Citizenship. Politically engaged residents joined together on a programming series on the topic of creative citizenship, so local artists, designers and other felt like empowered stakeholders in the future of the community.
the community.”

David Weinberger, author of “Too Big to Know,” said, “A platform view for libraries provides a better starting point for rethinking the role of libraries in a connected age.” Because platforms open up an array of connections and networks, they “encourage the creation of unpredictable yet important results. New arts, ideas, inventions, realizations...all kinds of things...are both created on the platform, and then fed back into it for others to use.”

Libraries are already creating networks in ways that are valuable outside the traditional realm of library services, but the library’s physical presence is an asset that online platforms such as Amazon, Google and Facebook don’t have.

What do Americans say about libraries?
Americans have largely positive views about their libraries, according to a phone survey conducted by the Pew Research Center in 2016.

- 77% say that public libraries provide them with the resources they need. This is especially true for young people: 84% of those between ages 16 and 29 say this. Young adults are more likely to have visited a library in the past year than those ages 65 and older. 53% of people 18-29 had visited a library or bookmobile, compared to 40% of those 65 and older.

- Overall, 33% say the closing of their local public library would have a major impact on them personally or their family, 33% said minor impact and 33% said no impact.

- Among those who say it would have the biggest impact:
  - Latinos (48%)
  - People ages 50-64 (42%)
  - Those with annual incomes of $30,000 or less (41%)
  - Women (39%)

- Those most likely to say that a library closing would have NO impact on them and their families:
  - Men (37%)
  - Those ages 18-29 (39%)
  - Those without high school degrees (40%)
  - Those without minor children (36%)

- The public identified the biggest contributions that libraries make to their communities, starting with providing a safe place for people to spend time.
How do we measure the value of libraries?
Libraries have historically measured activity rather than the results of that activity. But measuring circulation, door count, or program attendance doesn’t tell you the impact – called the “outcome” - of the information or program on the person.

Outcomes are changes in the behavior, attitude, skills, or knowledge of participating individuals. In other words, “If we offer this program/service, then a specific impact will be realized.” Measuring activity tells you that 25 people attended a class on starting a small business; measuring outcomes tells you that 75 percent of participants say they are more likely to start a small business after taking the class.

In a highly competitive environment, when every government service must prove its value, measuring outcomes is increasingly important. The Public Library Association launched Project Outcome to equip libraries with short, easy-to-use, patron-focused surveys designed to measure the impact of library services such as childhood literacy, computer training, and workforce development. It minimizes the work for each library, and gives libraries a shared language for common programs and the ability to aggregate data.

The seven surveys deal with:
- Civic/Community engagement
- Digital inclusion
- Early childhood literacy
- Economic development
- Education and lifelong learning
- Job skills
- Summer reading

To achieve meaningful outcomes, librarians need to develop focused service objectives for specific audiences. A local concern for economic development could translate into several library objectives, such as one to help job seekers, another to support entrepreneurs, or a third to assist individuals making financial decisions. (Broader programs, like providing adult fiction, can’t be evaluated with outcome measures because you need a target group and a change in the user.)

Or, librarians can look at current programs and ask, “Why are we providing this service? Who is the target audience? What do we expect to accomplish? How will we know if we succeeded?” The review may help to identify programs that are no longer needed or objectives that could be accomplished in a simpler, more collaborative way.

Albert Wisner Public Library in Warwick, NY – 2016 Best Small Library in America
Warwick, NY, residents voted to approve an $8.5 million bond issue in 2007, after decades of low funding and an inadequate facility. The new library was completed in 2009. AWPL is a district library serving 23,647 residents of Warwick and the Warwick Valley Central School District. The library receives per capita support of $58.37, and has a total budget of $1,380,391.

The library hosts a weekly Writer’s Group and several book clubs. The Red Book Shelf Project’s red-painted bookshelves are placed in key areas such as senior housing migrant labor centers, and the local food bank and kept stocked with new titles by AWPL volunteers. Other programs offer music, improv comedy, career transition help, and a teen battle of the books. Every quarter, the library offers Friday Fun Nights, where the library stays open late to allow more participation by working parents and their children.

AWPL works on partnerships with local organizations. It offers space for events, but also has developed ways to provide local groups with customized support, such as feedback, guidance, and liaisons.
What social and economic changes affect libraries?

**Impact of the knowledge economy and the digital era**

Personal computing, the Internet, collaborative workflow software, and search engines have created a platform that allows people to compete with others from around the world with greater efficiency and ease, Thomas Friedman notes. The knowledge economy has given birth to the creation economy, a free-agent economy where people need to create, not just consume, information. The half-life of a skill is about five years, so most learning in the future won’t go on in schools. Success belongs to the entrepreneurial learner who can find resources and use them to teach themselves. Libraries clearly have a role to play in making resources available.

In 2009, the Knight Commission on the Information Needs of Communities in a Democracy wrote, “Every advance in communications technology expands the possibilities for American democracy, but every information system also creates potential winners and losers.”

Five trends identified by the International Federation of Library Associations and Institutions as being important developments that communities and their libraries will need to respond to:

- New technologies will both expand and limit who has access to information.
- Online education will democratize and disrupt global learning, but going global and mobile doesn’t mean you have to lose tactile and local.
- The boundaries of privacy and data protection will be redefined.
- Hyperconnected societies will listen to and empower new voices and groups.
- The global information economy will be transformed by new technologies.

The impact of new technology is not only digital. Robots are moving from industrial and factory settings into everyday work, educational, research and living spaces. Several libraries have utilized robots to help with retrieving and sorting materials. Other libraries have seen robots and robotics as a next wave for technology access and training, and some even lend robots.

**Belgrade Community Library, Montana – Best Small Library in America 2015**

The library is located in a town of 12,700 in the exurbs of nearby Bozeman, MT. As Belgrade shifted from a small agricultural town to a more diverse community, the library aggressively developed new outreach efforts to meet changing needs. “The result is intense engagement and support from the community and an impact that extends beyond Belgrade’s borders through active partnership and state-level leadership.”

Over the last five years, BCL experienced a 127 percent growth in program attendance and the number of cardholders has grown from 1,778 in 2000 to 6,900 in 2015. It has an annual budget of about $327,000 and per capita support of $25.73.

BCL evaluated community preferences to establish a long-term tech plan. It found that many residents browse the web on mobile devices, so established a mobile website. It also found that a major barrier is lack of knowledge more than hardware, so it expanded tech tutorials where teens teach older adults. BCL also has a one-on-one tutoring service called Book-a-Tech for more in-depth help.
General trends that affect library services
In 2016, the Library Journal published a special section, “Designing the Future,” that offered a series of external trends that would affect libraries. This followed a similar series in 2015 that American Libraries magazine published, featuring trends identified by the Center for the Future of Libraries. The following includes information from both sources, along with some examples of how libraries have responded.

The future of the planet
The impacts of climate change and humankind’s role in it will influence everything.

- Rise of regenerative design. Buildings – including libraries – are being built to confer net benefits on a site. The Living Building Challenge is a certification standard and philosophy for regenerative design. A library in Chrisney, Indiana, a small rural community, sought to negate operating costs so the initial investment could be offset by savings in the operating budget. Achieving the Net Zero Energy Building certification was a solution to that. The International Living Future Institute awards the certificate to buildings that generate one-hundred percent of the project’s energy needs on-site using renewable energy, without the use of on-site combustion.

The future of connection
Gigabit tech, big data and the rise of ride-share are a few forces at work on the communication and transportation horizon. Among them:

- Car-sharing services help to improve urban mobility, resulted in fewer privately owned vehicles on the road, and reduced greenhouse gas emissions.
- Online activism is utilized as people seek to change social norms to make social change. That means setting an agenda and framing the agenda with various attitudes and arguments.
- Tools such as latency audiovisual streaming (LoLa), employed by the Chattanooga Public Library, which allows musicians in different cities to perform together as if they were in the same room.

The future of commerce
Little is more essential than making a living – and how to store, spend, and save what we earn.

- Income inequality will have an impact on education

Pine River Library, Colorado – Best Small Library in American 2014
PRL is a special taxing district in the town of Bayfield. It serves 8,749 people in an independent district that has the same boundaries as the local school district. It has a total annual budget of $582,000, or $66.52 per capita. $47,408 goes for materials.

The library added 5,000 square feet in 2013. It provided more space for the collection, a larger room for community meetings, a new teen zone, and more, including an indoor/outdoor fireplace and new solar panels. Total space – 13,000 square feet. The library also quit the Dewey Decimal System and moved to BISAC – Book Industry Standards and Communications. Patrons love it.

The rural area means many residents have poor internet service and little experience with technology. The library began lending technology in 2007. Today it lends 50 gadgets, including laptops, eReaders, tablets, CPS devices, MP3 players and video cameras, among others.

When the local school district has late-start days for staff training time, the library hosts story time for students in grades K-5, held at the schools.

Because there are few entertainment options for teens in the small town, parents worked with PRL to develop monthly teen nights, featuring music, games and activities geared toward young people in grades six through 12. Dozens of teens attend.
and on the library’s role as social connector, according to an American Library Association Center for the Future of Libraries brief. In 2010, the richest 1% of the population had 34% of the accumulated wealth (the very top 0.1% had some 15%) – and during the most recent recession from 2009 to 2012, the top 1% captured 95% of income growth, if capital gains are included. The achievement gap in education is one result of growing income inequality. A Stanford University study shows that the gap between rich and poor students on standardized tests is 30 to 40 percent wider than it was 25 years ago. Library programs will be important as they help reduce the gap, particularly if they focus on STEM skills that are needed in today’s economy.

In addition, the library has an important role to play as a space where people from a range of circumstances can gather together, which “may help improve the dialog across inequality and provide important economic opportunities for the community,” according to the American Libraries Association.

- Labor shortages will result from Boomer retirement, meaning that eventually there will not be enough qualified workers to staff U.S. jobs.
- The gig economy, where workers move from temporary job to temporary job, is permanent and will only continue to grow. In addition to upwork.com, sites like freelance.com and onforce.com are resources for people looking for temporary assignments.
- Providing support to business start-ups is a growing need. The Arizona State University Entrepreneurship Outreach Network is a collaborative of libraries, museums and economic development groups that provide the community with access to continuing education in entrepreneurship, mentors, service providers and other community-based resources. Started in Scottsdale, it has spread to 15 libraries in four states.

The future of play

Virtual and augmented reality hold promise – especially if playtime gets its due.

- Children have little free time for play. One library, the Sacramento Play Summit, holds a one-day program for adults to discuss play, why it’s important, and how to bring more of it to children. It’s done in partnership with a children’s organization.
- The major influences on play in the next 20 years

Independence Public Library, Kansas – Best Small Library in America 2012

Founded in 1882, the library was in trouble when Julie Hildebrand was promoted to the directorship in 2009. The library had to make some drastic cuts to keep the doors open. Just two years later, the library has “been reborn.” The library service district has a population of 13,420 and a staff of eight. Montgomery County has the highest unemployment rate in the state and is ranked at the bottom for health.

IPL used the national Geek the Library campaign from OCLC and the Gates Foundation, which is designed to highlight the vital role of public libraries and to increase local library support. Their Friends group bought three months of radio advertising, they bought book bags and so forth to give away, and a local photographer took pictures of residents to make Geek posters.

The library uses social media extensively, with several FB pages and staff blogs. In 2010, the library’s Facebook page had only about 10,000 views, but that jumped to 107,000 in 2011.

The library has focused on partnerships to create programming, such as a local candle shop that offers candle-making classes, or the Kansas Migrant Education program that offers ESL and conversational English classes.
will be: parents seeking to recreate their own retro play with their children; educational reform that focuses on problem solving, thinking skills and social learning; the increasing social dimension of play and improved connectivity via technology; the use of game mechanics in everyday life.

The future of reading
Reading will be increasingly multiformat, social, and interactive – even as global gaps in literacy persist.
- One prediction is that more and more we’ll skim online content, using it as a jumping-off point for further conversations with people around the world.
- Libraries are looking at how they can engage with emerging media formats, such as stories told through blogs, online platforms, and text message novels.

The future of government
Data transformation, transparency, and resident input are remaking civics as we know it.
- Cybersecurity is a top priority for government.
- In 2016, the LA Public Library held a hackathon to hack away at issues surrounding local immigrants, including creating applications and web interfaces designed to help immigrants meet the challenges of naturalization.

The future of learning
Learning is becoming increasingly self-directed, connected, and “interest-powered” – and disrupted as never before.
- Social learning environments – adults move beyond simple explanation into brokering, consulting and collaboration. Social learning also supports the development of identity and can be designed to create a sense of connection. When learners develop their own projects, find resources, build relationships, then their learning is becoming more committed. Some think that we should move away from focusing on individuals as learners to group dynamics.
- In America, college enrollment is expected to increase more than twice as fast among older students 35+ as those of traditional college age.
- If you were in Scouting, you earned badges when you mastered different skills. The badging concept has grown up. For learners of all ages, digital badging is expected to become a valuable way to recognize hands-on learning, which may not be captured well by grades. An example: The City of Chicago recruited more than 100 organizations, including the public library, for its Summer of Learning program. The partners developed badges recognizing a range of hands-on and educational activities and issued more than 150,000 badges. Cities of Learning has expanded to include Dallas, D.C., and Pittsburgh.
- What makes flipped learning “flipped”? You study the topic on your own first, through online video lectures, etc., and then you come to class to apply the knowledge with peers and teachers. Class time is used for hands-on learning and coaching instead of lecture. Libraries may consider adopting the flipped learning model, and may also look for ways to help educators as they record, upload and manage the online lectures.
- Game-based learning is a growing trend in K-12 education, higher education and professional training, and in engaging people to solve social issues. Advances in virtual reality technologies are likely to continue that trend as they offer new ways to engage in play. Gaming can promote spatial reasoning, math and logic, but also has been found to promote curiosity, socialization and the ability to process information. According to the American Libraries Association, “Libraries, recognized as spaces for interest-driven learning and self-directed discovery, are ideal for the type of learning and discovery promoted by games.”

The future of stuff
People are making, breaking, and tossing more things than ever.
- “The Story of Stuff,” a documentary explaining how consumer culture contributes to environmental problems, has helped grow a broader “zero waste” movement. If everyone on the planet consumed at the rate people in the U.S. do, we would need three...
additional Earths.

- Perhaps in order to prove that old is new again, libraries are renewing efforts to check out nontraditional items like tools along with traditional items like books and DVDs.
  - California’s Berkeley Public Library loans tools.
  - A branch of the Free Library of Philadelphia and has a “tiebrary” of 50 ties that patrons can borrow for job interviews.

- Some libraries are holding “repair fairs,” at which patrons can help one another fix small appliances, etc.
- The Hillsboro Public Library in Oregon loans out musical instruments, tools such as thermal leak detectors, gold panning kits, karaoke machines, and commercial grade popcorn and cotton candy machines.

The future of the life cycle
Greater longevity and diversifying household makeup meet initiatives that could spur well-being across demographics.

- People are marrying later, waiting to have children, and living longer.
- Every day in the U.S., 10,000 people turn 65 years old. That will continue to happen for the next 15 years, “producing a major demographic shift and a corresponding explosion in the need for library services to older adults.” By 2050, the number of older dependents is expected to rise from 20% in 2015 to 38%. By 2045, 52% of Americans will be older than 65.
- Lifetime Arts, a nonprofit, has partnered with more than 20 library systems to design and implement arts programs in collaboration with local arts educators. Older adults take eight- to ten-week workshops to create different kinds of art, based on local interests.
- The Westerville (Ohio) Public Library organized senior activities outside the library at senior centers, assisted living facilities and senior apartments. They developed programs that include technology training classes, gaming sessions, a pen-pal program that pairs seniors with elementary school students, and a very popular “Remember When” adult storytime program, which engages older adults to share their stories and memories based on a different theme each month.

The future of communities
The ways communities organize themselves and the purposes for that organization are changing.

- Organizations are adopting common agendas to address issues within their communities. Collective impact is defined as “the commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem.” The model encourages large-scale social change. Libraries might become critical partners in collective impact efforts, and may need to strategically align their services and priorities with community-wide responses.
- Resilience includes preparation for and rapid recovery from physical, social, and economic disasters, including natural disasters, terrorist attacks, or economic collapse. A culture of resilience encourages communities to plan and build in ways that reduce disaster losses. Resilience requires community involvement – encouraging individuals to make preparatory and preventive decisions and providing resources and information before, during and after incidents.

No library can respond to all of these trends, but any library can identify those that will have the biggest impact on their community and seek out creative ways to rise to the challenge.
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