Forces large and small will transform our communities. LJ takes a look at what’s in store for the future of...

THE PLANET
CONNECTION
COMMERCE
PLAY
READING
GOVERNMENT
LEARNING
STUFF
THE LIFE CYCLE
COMMUNITIES

FOR MORE ON DESIGNING THE FUTURE, GO TO LIBRARYJOURNAL.COM/DTF
Green is not good enough. Now, a new set of standards—the Living Building Challenge (LBC)—looks for buildings actively to improve the world around them. LJ speaks to Samuel Wright, manager, LBC, about how new built spaces, including libraries, are embracing the challenge.

**WHAT IS THE LIVING BUILDING CHALLENGE?**
The Living Building Challenge (living-future.org/lbc) is a certification standard and a philosophy centered on regenerative design. Rather than just having no negative impact, these buildings seek to confer net benefits on a site. The program holds buildings to standards of performance, which is why spaces [must] be open and operating for at least 12 months prior to certification.

**WHAT ARE SOME TECHNIQUES USED?**
The way a building meets those standards is up to the design team to accomplish in a local context. A living building in Anchorage, AK, is a very different space from one in Adelaide, Australia. A prep academy in a rather arid part of Hawaii is harvesting condensate water into a cistern to satisfy its entire water demand. A lot of the solutions that we see in living buildings aren’t new, but they are being incorporated into modern buildings in a way that increases efficiency without sacrificing comfort.

One of our Net Zero Energy certified buildings is a library in Chrisney, IN, which is a very small, rural community. The people who initially proposed it realized that one key to success would be to limit or even negate operating costs—that way, the initial investment could be offset by savings in the operations budget over time. For that space, achieving Net Zero Energy certification wasn’t a challenge, it was a solution.

Education is part of any library’s mission, and living buildings can serve as epitomes of the built environment. They show what a really good building can look like and how it can function. And since they are public spaces and community hubs that invite people to learn, they make great places to display that example.—Ian Chant

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**THE FUTURE OF THE PLANET**

As society faces what many now call the Anthropocene age, the impacts of climate change and humankind’s role in it will influence, literally, everything.

**STORMY WEATHER**
So-called 100-year devastating storms used to occur once a century but by 2080 could happen every 3 to 20 years

**MERCURY RISING**

2.5°F Farenheit
Predicted rise in temperature by 2050
Scientists say we need to avert a 2° increase to avoid the most catastrophic impacts of climate change
SOURCE U.S. DEPARTMENT OF TRANSPORTATION

**CROWDSOURCING CLIMATE DATA**
The ship’s log of whaling vessels—especially those that journeyed to the arctic—can contain valuable data on what the weather was like more than a century ago and the state of arctic ice. For a long time, they were not being mined by climate scientists seeking to understand modern-day climate change, but that’s changing. Driven by researchers at the National Oceanic and Atmospheric Administration (NOAA), the Old Weather Whaling project has digitized more than 200 logs from sources including the New Bedford Whaling Museum (NBWM), the Providence Public Library, the National Archives, and other institutions. In concert with the Boston Public Library and the Internet Archive, the records were digitized and brought online. But that alone was not enough to make them truly useful to scientists.

“Getting primary sources out there is great, but there’s still some interpretation needed,” says NBWM librarian Mark Procknik. “The information can be technical, and the spelling is often bad.”

Enter citizen scientists, enabled by Zooniverse, an online platform built to allow them to participate in research. Legions of volunteers can help transcribe the handwritten logs. Procknik and his colleagues also assembled a helpful guide on how to read the logbooks to assist this crowdsourced transcription.—IC
Gigabit tech, big data, and the rise of ride-share are a few forces at work on the communication and transportation horizon.

**SUSTAINABLE & EQUITABLE** In the next five to ten years, says Susan Shaheen, codirector of the Institute of Transportation Studies’ Transportation Sustainability Research Center, “advanced technologies and big data will enable us to better understand and manage our transportation ecosystems,” particularly automation and car- and ride-sharing tech.

“This will enable us to provide more equitable, affordable, safe, efficient, and environmentally friendly transportation.”

“This will take careful planning to ensure that individuals are not left behind due to the digital and income divide,” she says.

Shaheen and research engineer Elliot Martin recently completed an impact study on car2go. They found that car-sharing services helped improve urban mobility, resulted in fewer privately owned vehicles on the road, and reduced greenhouse gas emissions. In the works, Shaheen says: an analysis of Uber and Lyft and a survey of Zipcar use on college campuses and a study of how smartphone apps influence travel decisions. Safety, congestion management, and environmental impact will also be assessed.—Bob Warburton

**Remotely Together**

International musicians from the OneBeat program will visit Chattanooga this fall. Their itinerary includes the 4th Floor of the Chattanooga Public Library (CPL) downtown branch. Thanks to cutting-edge, ultra-high-speed connectivity used by CPL, students with the Miami, FL–based New World Symphony, 800 miles away, will accompany them in nearly real time.

The library employs a low latency audiovisual streaming system, better known as LoLa. LoLa works with advanced Internet2 gigabit technology to transmit sound and pictures while removing most of the delay in transmission, or latency. It allows musicians hundreds of miles apart (a previous test connected students on opposite coasts) to perform as if they were in the same room.

After a handful of smaller tests, CPL chose international Make Music Day in June to launch its first public splash. Its partner was the Fletcher Free Library in Burlington, VT, where a harmonica instructor taught a crowd at CPL, part of a lengthy LoLa-enabled program.

“Music is where latency is most critical,” says Mary Barnett, CPL’s public relations and special projects coordinator. Advanced LoLa software is being used almost exclusively by music conservatories: CPL is the only library currently rated by tech experts as an “operational LoLa node.”

After the upcoming performance, CPL will hold a roundtable of funders, educators, musicians, and entrepreneurs, Barnett says, to consider “how the intersection of music, interconnectivity, and gigabit technology can foster opportunities in education and community building.”—BW

**READS**


[The Inevitable: Understanding the 12 Technological Forces That Will Shape Our Future](https://www.viking.com/p/0210135305) by Kevin Kelly (Viking, Jun. 2016)

[Door to Door: The Magnificent, Maddening, Mysterious World of Transportation](https://www.harpercollins.com/p/9780062339654) by Edward Humes (Harper, Apr. 2016)

[Driverless: Intelligent Cars and the Road Ahead](https://www.mitpressjournals.org/doi/10.7551/mitpress/journals/driverless) by Hod Lipson and Melba Kurman (MIT, Oct. 2016)

**EVEN BIGGER DATA**

<table>
<thead>
<tr>
<th>Source</th>
<th>U.S. Department of Transportation</th>
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</thead>
<tbody>
<tr>
<td><strong>40%</strong></td>
<td>Annually growing global data enables car- and ride-sharing and pop-up bus services.</td>
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**SWAMPED TRANSIT**

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<th>Source</th>
<th>U.S. Department of Transportation</th>
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<tr>
<td><strong>4 ft.</strong></td>
<td>Rising sea levels will quadruple</td>
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<tr>
<td><strong>1 ft.</strong></td>
<td>2045</td>
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<td><strong>2100</strong></td>
<td><strong>2045</strong></td>
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Supporting entrepreneurship is one way libraries can engage the workplace of the future. The Arizona State University (ASU) Entrepreneurship Outreach Network is an example of collaboration across institutional types to realize benefits of scale. The network of libraries, museums, and economic development organizations provides community members with access to continuing education in entrepreneurship, mentors, service providers, and other community-based resources. Launched in 2013 at Scottsdale’s Eureka Loft, “ASU staff visited libraries to deliver weekly workshops, but to make the program sustainable, [it] transitioned to a train-the-trainer model,” Susan Halverson, manager of grassroots entrepreneurship initiatives at ASU’s Office of Entrepreneurship and Innovation, tells LJ. Since then, the network has been through several iterations and spread beyond Arizona to 15 libraries in four states. Today, each member library/community space identifies a librarian, economic developer, or volunteer who undergoes training and facilitates ASU Start-up School workshops. While it is not required, some member institutions dedicate significant staff time and/or have renovated to provide designated space for small business owners and entrepreneurs to work in the library, and many supplement the offerings with local resources.

Among the successful outcomes of the program: Regiane Johnson, who came to the Yuma Public Library with the goal of starting her own café and bakery, eventually did so—and it operates out of the very library where she learned the ropes.—Meredith Schwartz

### MORE SENIORS, LONGER LIVES

<table>
<thead>
<tr>
<th>Life expectancy at birth is projected to rise (by age)</th>
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<tbody>
<tr>
<td>2015</td>
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<td>8.5%</td>
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### GLOBAL GROWTH

<table>
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<tr>
<th>Modest increase in 2017</th>
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<tbody>
<tr>
<td>Advanced Economies</td>
</tr>
<tr>
<td>Emerging Economies</td>
</tr>
</tbody>
</table>

**SOURCE:** INTERNATIONAL MONETARY FUND

### COMPLEX COMPETENCIES

<table>
<thead>
<tr>
<th>New skill sets needed for jobs that don’t already require them</th>
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</thead>
<tbody>
<tr>
<td>Cognitive abilities</td>
</tr>
<tr>
<td>Content skills</td>
</tr>
<tr>
<td>Process skills</td>
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<tr>
<td>Social skills</td>
</tr>
</tbody>
</table>

**SOURCE:** WORLD ECONOMIC FORUM’S FUTURE OF JOBS SURVEY, 2014

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**LJ reached out to Alexandra Levit,** CEO of HR consultancy Inspiration at Work, author, and speaker, to learn where she sees the workplace heading.

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**ARE THE NEWER ASPECTS OF TODAY’S JOB MARKET SUCH AS COWORKING AND “GIG” WORK A NEW NORMAL?**

The gig economy is indeed permanent and will only continue to grow. In addition to Upwork.com, sites like Freelance.com and OnForce.com are great resources for patrons looking for temporary assignments. FlexJobs.com is a terrific site for those who are looking for more flexible positions in which they might work from home, share a job with another person, or have an atypical schedule.

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**YOUR BOOK SUCCESS FOR HIRE (ASSN. FOR TALENT DEVELOPMENT) STATES THAT BABY BOOMER RETIREMENT MEANS THAT THERE WILL EVENTUALLY NOT BE ENOUGH QUALIFIED WORKERS TO STAFF U.S. JOBS.**

This labor shortage resulting from the boomer retirement has already begun, and yet according to DeVry University’s Career Advisory Board (CAB) 2015 Job Preparedness Indicator study, the majority of hiring managers say they cannot find the right talent to fill open positions. Another CAB study on successful job seekers indicated that the key for job seekers is to target carefully the positions for which they’re a fit, customize their applications, organize their opportunities, and hone their interpersonal skills.

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**ARE THERE DIFFERENT APPROACHES TO WORKING WITH JOB SEEKERS OF DIFFERENT GENERATIONS?**

It really varies by the individual and also by job hunting experience. If a boomer hasn’t looked for a new job in ten years or more, for example, he or she might not be up-to-date with all of the online resources available. Librarians should make sure they understand what’s available and important, like having a comprehensive and strategic LinkedIn profile, using apps such as SwitchApp to search for jobs on your phone, and perusing sites like UpWork.com for freelance opportunities.—Henrietta Verma
Virtual and augmented reality hold promise—especially if playtime gets its due

THE PLAY GAP

To Rivkah Sass, executive director, Sacramento Public Library (SPL), CA, there is no greater enemy to young children than the “play gap”—the shrinking time to explore, invent, and run amok that’s given way to test prep, shortened recess periods, and scheduled downtime. Sass feels passionately that libraries are not only an optimum space for children to play but also where parents, caregivers, and educators can learn how to support this key building block for literacy.

“If we don’t address this, then when [children] start or are in school they’re not going to get as much time to play,” Sass says. “Recess doesn’t really exist as it did when I was a child.”

Hence, the Sacramento Play Summit (SPS), a partnership between the SPL and Fairytale Town, a one-day program for parents, teachers, caregivers, and librarians to discuss play, why it’s important, and how to bring more of it to children.

Now in its fourth year, SPS brings together about 240 individuals. There are sessions on organization, how to encourage play with found objects, and how play impacts child development.

Kathy Fleming, who’s been executive director of Fairytale Town for 16 years, like Sass, has seen the freedom to explore, invent, and discover shrink as children’s time has become more scheduled and even the physical ability to explore curtailed.

That is a loss not only to the child but to the community as a whole.

“This is an opportunity for libraries,” says Sass. “It’s critical that we make space for play and customize it to the services we provide. If we don’t own it, if we don’t take this on as ours, it’s going to turn into something that isn’t play. We can do better.”—Lauren Barack

New Realities

Meghan Athavale, CEO, Lumo Interactive, talks to LJ about the evolution of play and what’s coming next.

HAS TECHNOLOGY FUNDAMENTALLY CHANGED THE WAY CHILDREN PLAY?
Dolls and toys have always represented anthropomorphic symbols for children. The difference is...children engage with technology almost indistinguishably from how they would with a person. There are a lot of alarmists wondering if we’re killing the imagination for children. In their minds, if a toy talks back to you, you’re killing their sense of creativity. I would argue it isn’t.

HOW ARE AUGMENTED REALITY (AR) GAMES, SUCH AS POKÉMON GO, AFFECTING HOW CHILDREN SEE THEIR WORLD?
There are more situations where the physical and virtual spaces coexist. If you look at the earth, there aren’t actually physical lines where countries are; they are imagined, and those boundaries make up our political society. But they are virtual, and we are comfortable with those constructs. Technology allows us to superimpose this. I think this will change the way children perceive the world around them.

WHERE DO YOU SEE PLAY HEADNG?
There are certain types of toys that are extremely creative [and] allow children to manipulate objects but also teach the fundamental building blocks of how technology in our society works. One danger is that there is a strong possibility that if technology looks like magic, then people will start selling snake oil. It’s important at a young age to give children the opportunity to be creative and to learn how the magic works, so they make a responsible decision about it.

WHAT ROLE CAN LIBRARIES TAKE?
First, they can give children the tools, such as Maker spaces. Second, they can teach kids how to teach themselves, by teaching children how to use modern tools and do their own research. Third, they can ask kids what problem would they like to solve in their community and give them the tools to [do so]. It gives them a chance to see projects through to the end but also teaches them in a more rewarding fashion than following a kit.—LB
Multiformat, more social, and increasingly interactive—even as global gaps in literacy persist

LEVEL UP LITERACY
757 million adults worldwide—two-thirds of them women—are illiterate, 15% of the total population

50% Reduction in adult illiteracy pledged by the international community for 2015 compared to 2000 (most countries failed to reach this goal)

SOURCE UNESCO

PHONE READERS LIKE LONG FORM
123 seconds Spent on long-form articles
57 seconds Spent on short-form articles
Long- and short-form articles got approximately the same number of visitors.

SOURCE PEW RESEARCH CENTER, MAY 2016

HIT SHARE

While reading is often thought of as a solitary activity, some of our best book experiences can be social. That shared storytelling experience, says Bob Stein, creator of the Institute for the Future of the Book, is coming to traditional books in a transformative way.

A force behind some of the earliest CD-ROMs and a founder of the Criterion Collection of classic films, Stein also founded the institute, a “think and do tank” that explored the shape written communication will take in the coming years. The project, a collaborative effort with New York University Libraries, is now mostly dormant but left Stein with one key takeaway.

“As sure as I was in 1992 that the future of the book was on screens, I’m now sure that it’s social,” he tells LJ.

Stein predicts that more and more we’ll skim online content, using it as a jumping-off point for further conversations with people around the world.

“There’s nothing ideal about reading by yourself,” Stein says. “That’s just the way we did it for a long time.” —Ian Chant

The World Between Two Covers: Reading the Globe
BY ANN MORGAN (LIVERIGHT: NORTON, 2015)

Distant Reading
BY FRANCO MORETTI (VERSO, 2013)

Mass Authorship and the Rise of Self-Publishing
BY TIMOTHY LAQUINTANO (UNIV. OF IOWA, OCT. 2016)

Where Reading Meets Gaming

As part of the 2014 exhibition Lines in the Ice, about Arctic exploration, the British Library (BL) brought author Rob Sherman on as an interactive fiction writer in residence. He worked with library staff to develop material about the life of a fictional sailor, told through an interactive game, maps, and even a logbook created for the exhibition—and professionally weathered by BL conservators.

Philip Hatfield, lead curator for Digital Map Collections and of Lines in the Ice, talks to LJ about what the project says about the future of interactive texts.

WHAT MADE INTERACTIVE FICTION THE RIGHT CHOICE?
We wanted to see if it brought in new audiences or made people engage with the exhibition differently. Rob’s “digital cairn” (where messages could be left for the author) and physical objects (such as the ship’s log) became important and dynamic parts of the exhibition space.

HOW WILL INTERACTIVE LITERATURE CHANGE THE WAY WE READ AND TELL STORIES?
It’s a fascinating time for how we read and how we play games. Interactive platforms like Twine and Twitch open up reading and games to new audiences and, as we showed, open up the potential for these narrative platforms to interact with spaces in the library. We are also watching augmented reality games like Pokémon GO starting to bring audiences into institutions like ours for new reasons and engaging with spaces differently. What we tried to do could become much more prevalent.

HOW ELSE IS THE BRITISH LIBRARY WORKING TO UNDERSTAND WHAT READING WILL LOOK LIKE?
The library is currently reviewing how it can engage with and collect emerging media formats, such as stories told through blogs, online platforms, and also SMS [text message] novels. For us, this is very much an open field, and we are having discussions with audiences and authors about how the library might collect such material and relate to it more broadly. Projects like On My Wife’s Back [a Twine game that runs alongside, and cannot be played without, the artifacts from Sherman’s residency] have been some interesting first steps.—IC
Civic Center

How to serve immigrants and new Americans is a pressing challenge for libraries nationwide, but few more so than the Los Angeles Public Library (LAPL), whose 73 locations serve the largest population of any U.S. system, including about 700,000 immigrants eligible for citizenship who have not yet become involved in the naturalization process. LAPL decided to be a pioneer on this issue and partner with other governmental entities to do it.

This July, LAPL served as host for the Civic Innovation Lab’s Immigration Hackathon. Part of Mayor Eric Garcetti’s #techLA initiative, more than 100 programmers, activists, politicians, policy wonks, students, and residents turned out to “hack away” at issues surrounding local immigration, including creating applications and web interfaces designed to help immigrants meet the challenges of naturalization.

“It’s in our strategic interest to do this,” says John Szabo, L.A. city librarian, who spoke at the hackathon, as did Garcetti.

One account of the hackathon noted three key takeaways:

1. LAPL is establishing itself as a welcoming, trusting environment.
2. The essence of U.S. citizenship is larger than the individual parts of work, health, and education.
3. Immigrants need not shed their heritages in order to become American citizens.

The library’s goal, according to a spokesperson, is nothing short of emerging as the most prominent destination of immigrant and life-enrichment information and programs and services for new Americans and their families in Los Angeles.

U.S. Citizenship and Immigration Services and the Institute of Museum and Library Services are using LAPL’s programs as a model for other municipalities, and L.A. has joined with New York and Chicago to launch “Cities for Citizenship,” a major nationwide initiative to increase naturalization.—Bob Warburton

**THE FUTURE OF GOVERNMENT**

**TECH ENABLED**

For Jane Fountain, founder and director of the National Center for Digital Government (NCDG), harnessing technology’s power to help federal agencies collaborate and serve the people more effectively should be a priority for the next president and future administrations.

“When you think of the future of government, we have all these tools and all these capabilities that can be purchased and procured and layered on top of what you already do,” says Fountain, a political science professor at the University of Massachusetts, Amherst. “What creates transformation is when you say you know people are actually going to do their jobs in a different way, and we’re going to design our processes in a different way to take advantage of the fact that we’re in a digital world.”

Fountain also directs the Science, Technology and Society Initiative, which focuses on research and programs related to emerging technologies. In March, in a report for the IBM Center for the Business of Government, Fountain wrote that the next president should appoint a chief operating officer to oversee cross-agency collaboration in order to implement a technology-based strategy. “There’s always been a need to collaborate across organizations apart from technology, but when you put the two together, I think there are now far greater opportunities for cross-boundary collaboration,” Fountain says.

Fountain also lists “cybersecurity” as a top priority for governments going forward. “That’s a big series of challenges that will have to be met,” she says.—BW

**OPEN**

**69** countries belonged to the Open Government Partnership

**2,250** commitments have been developed to make governments more open, transparent, and responsive

**36** countries have established a permanent dialog mechanism

**18** countries submitted independent reports on their progress in achieving their commitments

**SOURCE** OPEN GOVERNMENT PARTNERSHIP (AS OF 2015)

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**READS**

**Unfair:** The New Science of Criminal Injustice
BY ADAM BENFORADO (CROWN, 2015)

**Future Crimes:** Everything Is Connected, Everyone Is Vulnerable, and What We Can Do About It
BY MARC GOODMAN (DOUBLEDAY, 2015)

**Slippery Slope:** Europe’s Troubled Future
BY GILLES MERRITT (OXFORD, AUG. 2016)

**The Seventh Sense:** Power, Fortune, and Survival in the Age of Networks
BY JOSHUA COOPER RAMO (LITTLE, BROWN, MAY 2016)

**A World in Disarray:** American Foreign Policy and the Crisis of the Old Order
BY RICHARD HAASS (PENGUIN, JAN. 2017)

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**SPECIAL REPRINT** | LIBRARY JOURNAL | SEPTEMBER 15, 2016

6
THE FUTURE OF LEARNING

Self-directed, connected, and “interest-powered”—and disrupted as never before

EDUCATION GAPS Countries with high income are twice as close to achieving the ideal educational level as those with low income. Age groups already in the workforce have a major disparity between their education and what’s needed for today’s jobs.

SOURCE: WORLD ECONOMIC FORUM HUMAN CAPITAL REPORT 2016

Self-directed, connected, and “interest-powered” learning will be more and more committed.

To help foster a sense of connection,” explains Barron. “When learners begin to develop their own projects, set their own goals, find resources that support expertise development, build relationships—and be recognized by others for their expertise, we can be confident that their learning is becoming more committed.”

Says Barron, “Libraries and librarians have unique roles to play in the broader educational ecosystem.” Ideally this would result in “the design of hybrid forms of curriculum-based learning” that “serve to build cultural learning pathways.”

The LIFE center is also investigating how to create “equitable access to learning opportunities for parents with younger children, in particular how families use media in their learning practices.”

Barron notes that “we need to understand more about how adults in community spaces and in homes can position learners in ways that help connect them to additional opportunities to learn and develop practice-linked identities.”

Barron mentions that “it is likely that new forms of professional development will be needed” to support innovative learning models for youth. As for further research, Barron hopes it will move away from focusing on individuals to group dynamics.—April Witteveen

SOCIAL STUDIES “We have to focus on a deeper understanding of the relational nature of learning” says Brigid Barron, associate professor at the school of education at California’s Stanford University. A faculty colead of the Learning in Informal and Formal Environments (LIFE) center, Barron and her colleagues explore the importance of social learning environments through the National Science Foundation–funded project.

Educators, including librarians, have a large role to play in supporting a new paradigm of youth learning. Adults who move beyond simple explanation into “brokering, consulting, and collaboration” and “socialize positive attitudes toward innovation” are more able to “position young people in authentic roles as contributors,” Barron tells LJ.

Social learning also supports the development of identity. “Learning environments can be designed to help foster a sense of connection,” explains Barron. “When learners begin to develop their own projects, set their own goals, find resources that support expertise development, build relationships—and be recognized by others for their expertise, we can be confident that their learning is becoming more committed.”

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BACK TO SCHOOL

In America, college enrollment is projected to increase more than twice as fast among older students as those of traditional college age.

Enrollment 2010-2021

<table>
<thead>
<tr>
<th>AGE</th>
<th>18-24</th>
<th>25-34</th>
<th>35+</th>
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<tbody>
<tr>
<td>0</td>
<td>10%</td>
<td>20%</td>
<td>25%</td>
</tr>
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</table>

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS, 2013

Connecting the Dots

To fulfill the need for new forms of professional development, one source to consider is Mega Subramaniam, associate professor and associate director, Information Policy and Access Center (IPAC), University of Maryland, and the ConnectedLib project. Under the leadership of lead principal investigator Katie Davis, the goal of ConnectedLib is to create a tool kit that will offer professional support and best practices for librarians who will then “incorporate digital media into their work with youth to promote connections across learning contexts,” according to the project’s website. It builds on the connected learning (CL) model developed by researcher Mizuko (Mimi) Ito and her team: learning should be interest-powered, peer-supported, and academically oriented.

In the first of three grant-funded years, Subramaniam surveyed librarians about their knowledge of CL practice and how they are implementing CL. While data analysis is still in the preliminary phase, the ConnectedLib team has begun to notice broad themes. “Many libraries are doing [CL] activities but don’t realize it,” says Subramaniam. While library programming for youth regularly connects with interest-powered and peer-supported learning, they don’t often hit the mark for being academically focused. “They need support to be more intentional,” remarks Subramaniam.

Stay tuned to the ConnectedLib website as the research team begins to publish complete findings in the upcoming months.—AW

Creative Schools: The Grassroots Revolution That’s Transforming Education by Ken Robinson (Viking, 2015)


A School of Our Own: The Story of the First Student-Run High School and a New Vision for American Education by Samuel Levin & Susan Engel (New Pr., Sept. 2016)

READS
People are making, breaking, and tossing more things than ever

Some people are willing to share or rent more than their cars and apartments for a fee—such as:

- **28%** Electronic devices
- **23%** Power tools
- **22%** Bicycles
- **22%** Clothes
- **17%** Furniture
- **13%** Motorcycles
- **7%** Pets

**SHARING ECONOMY**

**SOURCE NELSON REPORT MAY 2014**

**SLOWING THE FLOW**

In 2007, activist Annie Leonard produced *The Story of Stuff*, a concise, compelling documentary explaining how modern consumer culture contributes to environmental problems. Not only do people create too much trash, waste and pollution are generated at every stage of the materials economy, from the extraction of natural resources, through the production, distribution, consumption, and disposal of consumer goods.

The video has been viewed an estimated 40 million times. And the Story of Stuff Project (SSP; storyofstuff.org) has gone on to produce a book (see list), plus additional short documentaries, including *The Story of Cap & Trade, The Story of Cosmetics, and The Story of Electronics*, growing in tandem with the broader “zero waste” movement.

At the core of that movement is a growing community of lifestyle bloggers. At the other end of the scale, several major companies, such as Ford and MillerCoors, have made landfill-free production facilities part of corporate sustainability plans.

Near-term trends don’t point toward widespread adoption of zero-waste lifestyles, but in the long term, a radical reduction in future “stuff” seems inevitable. If all 7.4 billion people on the planet consumed at the rate people in the United States do, we would need three additional “Earths,” according to a SSP fact sheet. This is, in every sense of the word, unsustainable.

In the meantime, libraries—now and in future—can play a role by loaning out tools, electronics, and other items that might get limited use if purchased by an individual or single household. “It can’t be overstated how important libraries are in helping us share better,” says Shana DeClercq, community engagement manager for SSP.

Many libraries are circulating tools and other things, DeClercq says, citing the California’s Berkeley Public Library’s Tool Library and the “tiebrary” of 50 neckties (that patrons can borrow for job interviews or other occasions) at the Free Library of Philadelphia’s Paschalville branch. Possibly as a tie in with the growing Maker movement, some are hosting “repair fairs” at which patrons can help one another fix small appliances or other items rather than throw them away.

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**AFFLUENZA: HOW OVERCONSUMPTION IS KILLING US AND HOW TO FIGHT BACK**

**BY JOHN DE GRAFF**

(BERRETT-KOEHLER, 2014)

**EMPIRE OF THINGS**

**BY FRANK TRENTMANN**

(HARPER, MAR. 2016)

**THE STORY OF STUFF**

**BY ANNIE LEONARD**

(S. & S., 2011)
Data-Driven Wellness  The average American life cycle has changed dramatically in recent decades—people are marrying later, waiting to have children, and living longer. This presents interesting challenges to health-care professionals—how can medical practice keep up and help people live healthfully throughout every stage of their lives? Frank Maletz, an orthopedic surgeon in New London, CT, established the Healthspital foundation, which explores ways to overhaul health care in America.

Healthspital’s key approach is to mine the abundant medical data that already exists—electronic patient records, medical research—for intelligence that health-care providers and patients can access. This would mean integrating data from many different resources, including hospital libraries and the Internet, and filtering it so that individuals can find what they need. The thousands of community hospitals across the nation, Maletz posits, could create an integrated, open “health-care ecosystem.” In the Healthspital, says Maletz, “the medical librarian can be a navigator of health information, serving as a “resource center” for patients. “Patients actually help themselves with that vital intelligence—they can ask better questions and interact with their doctor,” he explains. This interconnectivity would also enable health-care providers to learn more about best practices and medical trends.

Health-care practitioners can be resistant to change, but Maletz has been persistent in getting the word out about his Healthspital paradigm. We have to “accept that change is going to happen,” he says, “and then use all of the tools that are available to make the system work for us.” —Jennifer A. Dixon

CREATIVE COLLABORATION

Americans’ golden years today look quite different from a few decades ago. As seniors lead longer and more active lives, libraries must shift programming to meet new needs and interests. To that end, Lifetime Arts, a nonprofit arts service organization that focuses on older adults, has partnered with more than 20 library systems to design and implement innovative programs for aging populations. This initiative started in Westchester County, NY, about eight years ago and has spread nationwide.

According to Maura O’Malley, cofounder and CEO of Lifetime Arts, “Traditionally, library programming for older adults has been focused on the problems of old age, not so much the benefits and assets and opportunities.” The goal of Creative Aging is to address changing demographics and help libraries build the capacity to collaborate with local arts educators on arts programming for older adults. Lifetime Arts provides training for library staff and an online tool kit of resources. The resulting programming can be quite diverse, shaped by the interests of the local population. It embraces everything “from tango to digital memoirs to collage and painting to graphic novels and theater,” says O’Malley. The eight- to ten-week workshops typically offer a culminating event to celebrate participants’ work.

According to Susan Benson, program specialist at California’s Sacramento Public Library, Creative Aging classes “provide opportunities for meaningful creative expression through visual arts plus fills the need for social engagement.” Social connections made through the program combat the isolation that can impact older adults and alter the “extremely limiting and erroneous” view that we lose the capacity to produce art and learn as we age.—JAD
THE PEOPLE’S PLACE

Community engagement is at the heart of Dokk1, the main branch of the Aarhus Public Libraries, Denmark. The system received a $1 million grant from the Bill & Melinda Gates Foundation’s Global Libraries division to “pioneer an innovative library model” with the help of IDEO, a global design company (see “The Future of Futures, p. 24ff.”). Its efforts were rewarded with IFLA’s 2016 Public Library of the Year award. The jury noted that “with a high degree of user inclusion during the construction process, the intention has been to transform the [building] from being the library’s place to being the citizens’ place.”

The design process helped not only to “obtain insights about user preferences and habits but also make use of their brainpower and abilities in the actual creation of services,” per Rolf Hapel, director of libraries and citizens’ services. That collaboration didn’t stop once the design was completed: the library works with more than 100 partners from education, public services, NGOs, and civic society organizations.

The physical facility is designed to promote community engagement. According to Hapel, “most of the furniture encourages...being together, many of the spaces invite [users] to various kinds of collaboration, the openness and transparency of the premises give incentives to and lowers the threshold of community,” as does the ability to reserve gathering space for free.

Dokk1 also has a Citizens’ Services department that offers digital access to forms for passports, driver’s licenses, and other municipal paperwork and draws about ten percent of the library’s 1.3 million annual visitors. Aarhus’s Citizens Services and Libraries division also runs the local Smart City initiative and exhibits big data generated by all sectors.

The structure has a literal connection to the growth of the community: when a child is born a nearby hospital, new parents push a button that sounds a tubular bell, the world’s largest, in the library. Additionally, visitors can share their Instagram images of the library on large screens in the building, “enabling everybody to be a part of the story.”—April Witteveen

Resident-led innovation is transforming towns around the world

Cross-City Collaboration

The key to crafting a better future for communities lies in civic engagement through collaboration, according to the Institute for Emerging Issues (IEI), a “think and do” tank located within the James B. Hunt Jr. Library at North Carolina State University.

IEI works with the state’s communities to solve problems they define using strengths they already possess. The annual Emerging Issues Forum focuses on a theme with “the audience set[ting] the priorities,” according to Patrick Cronin, assistant director for policy and programs. In 2015, the forum focused on economic growth via the technology sector beyond the North Carolina’s Research Triangle region.

A cross-city learning collaborative, InnovateNC, grew from that event and now supports five communities in total with up to $250,000 of consultation, access to best practices, and technical assistance.

The 2016 forum, Futurework, resulted in a statewide bus tour of North Carolina’s eight “prosperity zones.” IEI staff engaged residents in conversation about strategies to ensure a skilled workforce. “We asked about how these regions are responding to shifts in the economy, and...what kind of support they may need,” says Cronin. IEI will compile data from the tour and share it with state leadership.

Cronin says IEI is committed to connecting with rural areas, where populations have been “hollowed out” by economic change and aging in place; “by and large they are resource constrained,” he says. According to Cronin, IEI knew “there were very few institutions left [that] can play the role of locus or catalyst for community action,” so it looked to the faith community, which, along with public libraries, “remain the strongest, most impactful, and most trusted local institutions.” IEI also seeks to engage North Carolina youth through the Discovery Forum, a social entrepreneurship competition offered at the high school and college level. —AW