The Library of the Future

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# Overview

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Executive summary

This report has been designed to support COSLA leadership in forecasting change, informing and preparing SLA’s, and advocating for resources.

The report begins with research trends on society, public libraries, and library patrons. Future state concepts and supporting examples for libraries are formed based on the research trends. Finally, the report concludes with a series of recommendations divided into three groups: strategic imperatives, tactical actions, and habits. An overview of the recommendations follows:

**Strategic Imperatives**
1. Benefit the public good
2. Provide equal access and opportunity
3. Foster community engagement
4. Boost image and awareness of libraries
5. Bolster influence with policy makers
6. Measure and communicate the impact of libraries

**Tactical Actions**
1. Create, or partner with, a digital advocacy service
2. Host data challenges on sites like Driven Data
3. Connect platforms on the state and national level
4. Form decision teams to test major decisions
5. Ask patrons for consent to collect data
6. Create a funding platform similar to gofundme
7. Host leaderboards and praise library patrons
8. Host leaderboards and reward employees
9. Empower patrons to share items and content
10. Connect patron-uploaded docs to additional info

**Habits**
1. Collect data and quantify the impact of services
2. Communicate success stories
3. Seek ways for patrons to contribute
4. Rehearse and test services and options
5. Remind patrons how they can advocate for libraries
What is a disruptive force?

A disruptive force is a known or emerging trend with significant potential to impact not only public libraries, but all industries.

Disruptive forces represent shifts in patron behavior and/or preferences or advances in technology that create new standards for products, services, and experiences.

Some disruptive forces transform environments while others never come to fruition and fade. The future will be shaped and formed not by a single trend but a combination of disruptive forces.
Disruptive forces

The Trust Currency
The underlying foundations of today’s economy and how consumers interact with institutions and each other have changed. Trust has become a currency, given and received across categories and industries. New business models are being built on the willingness of consumers to trust others on centralized, governed platforms, which is leading to a booming sharing economy.

Rising Inequality
Once a thriving symbol of opportunity, America’s middle class is on the decline. In the long term, an economically divided society could have radical, tumultuous political implications. In the near term, income inequality will affect how companies choose to segment markets, who they choose to serve, and how they craft their messaging. It will become increasingly difficult to speak authentically with one voice to such a bifurcated American public.

Conscious Capitalism
While capitalism was advanced as a viable economic model by past generations, the current generation is asking how capitalism can be used to advance their own set of values. Holding companies accountable to a social, environmental, and financial bottom line has become so commonplace that Corporate Social Responsibility is now a check-the-box. As millennials age, this trend will continue to become stronger.

Expectations Arms Race
Boundaries that traditionally separated consumer expectations across categories have never been more blurry. Digital-first companies are setting the bar for higher quality offerings, better customer experience, and increased access to support. Consumers no longer compare a given experience to similar ones in the same category, but measure against the best experience, regardless of category.

Outsourcing Intelligence
Artificial Intelligence, robotics, and other automation tools aim to generate cumulative time savings and efficiency gains. As these tools begin to target decision-making and analytically-complex processes, the need for human involvement will evolve. Instead of owning the responsibility to deliver the analytical outcomes, humans will capitalize on other types and forms of intelligence.

Redefining Public Space
The function of physical spaces and their ability to shape the way humans think, work, and interact is now a focal point in modern design. Companies and organizations are reconstructing their environments to increase productivity and bolster the customer experience. Concepts such as creative placemaking, makerspaces, and design and experiential thinking demonstrate the refined role that space plays in daily interactions.
Disruptive forces

Privacy
The right to privacy is an essential part of intellectual freedom. As new digital technologies demand more personal information and are embedded into aspects of everyday life, the dynamics of privacy and its value to society and individuals is changing. Trends such as the Internet of Things, mobile device ubiquity, and an entire generation of “digital natives” will continue to shape the meaning of privacy and the extent to which individuals can control their information.

Gamification
Gamification, the application of digital game design and gaming concepts to different professional and educational settings, continues to rise in popularity as a powerful way to teach and engage audiences. Improvements in technology have enabled the growth of mobile and traditional gaming as well as new dimensions such as augmented and virtual reality, which promise numerous and novel ways to engage with content.

Big Meaning, Not Big Data
Although the increased digitization of work processes and the proliferation of sensors have laid the groundwork for the big data revolution, traditional investment overly focuses on collecting, integrating, and analyzing existing sources of information. Making the leap to ‘big meaning’ requires organizations to selectively identify and decipher nontraditional sources of information. The focus of analytics will shift from conducting analysis using a broad set of data to pursuing data thoughtfully and deliberately.

Quantified Action
Consumers have been increasingly collecting and tracking information about their everyday activities and environment. In doing so, they are hoping to make more informed decisions on routine activities. While the first forays into this trend have produced a lot of data, consumers currently see less value because much of the data collection exists as better documentation rather than insights that lead to a better life. As a result, consumers are now demanding not just data, but quality information and recommendations formed from their data.

The Gig Economy
Dynamic networks of shared, coordinated resources are reshaping the way we live and work. The most important of these resources is time. As technological innovation assumes more functional and administrative roles, human interaction is rendered the fundamental tenet of premium service. The gig economy will develop in tandem with consumers’ desire for instantaneous, on-demand service, allowing companies to meet those needs with a flexible, efficient talent pool.
#1: The trust currency

The underlying foundations of today’s economy and how consumers interact with institutions and each other have changed. Trust has become a currency, given and received across categories and industries. New business models are being built on the willingness of consumers to trust others on centralized, governed platforms, which is leading to a booming sharing economy.

**MOMENTUM**

**From** only trusting institutions  
**To** trusting platforms and communities
#1: The trust currency

Signals

Trust currency organizational models have grown rapidly across industries

- **Transportation**
  - UBER
  - SILVERCAR
  - lyft

- **Travel & Work**
  - Airbnb
  - WeWork
  - Hotel Tonight

- **Food**
  - Instacart
  - Grubhub
  - Blue Apron

- **Retail**
  - eBay
  - Farfetch
  - Rent The Runway

- **Media**
  - Twitter
  - Spotify
  - Netflix

- **Financial Services**
  - Kickstarter
  - Lending Club
  - SoFi

Amount of global investment by sharing economy companies through 2012-2016: $45B

Number of the largest startups in the world by valuation that are sharing economy companies: 8 of 10

Total number of US adult internet users who will use a sharing service at least once this year: 56M

Sources: CB Insights, eMarketer, PWC
#1: The trust currency

Why it matters to public libraries

In a world of sensationalized information, libraries provide a center of trust

“Libraries are largely trusted institutions. People who are reluctant to trust other government agencies will often trust libraries.”
- Chief Officer

“Libraries are a place to get quality information. I do not have time to fact check all the garbage on the internet.”
- Library Patron

“Libraries need to reassert themselves as the sources of truth for the community. People are overwhelmed by bad information and libraries can solve that.”
- Library Patron

People view libraries as a trustworthy place to find opportunities and discover information

47% Of surveyed US adults 16+ agreed that libraries contribute “a lot” to providing a trusted place for people to learn about new technology

37% Of surveyed US adults believe libraries contribute “a lot” to helping people decide what information to trust

78% Of surveyed US adults believe that the public library helps them find information that is trustworthy and reliable

Sources: PEW research
#1: The trust currency

Examples that inspire

**Rent the Runway**
Rent the Runway provides access to designer dresses and accessories for 4 or 8 day periods. Customers are incentivized to provide feedback on the items they rent, which creates a platform of user-generated feedback and data. This data is a valuable asset that is used to drive operations within the business.

**Lending Club**
Lending Club is an online credit marketplace that connects borrowers with investors in exchange for interest income. The platform has facilitated over $42 billion in borrowed credit between more than 2.5 million customers.

**The Trust Project**
The Trust Project is an initiative launched by the Markkula Center for Applied Ethics at Santa Clara University. Partnering with nearly 70 media organizations, the project developed a collection of digital “trust indicators” that signify reliable and responsible reporting.
Once a thriving symbol of opportunity, America’s middle class is on the decline. In the long term, an economically divided society could have radical, tumultuous, political implications. In the near term, income inequality will affect how companies choose to segment markets, who they choose to serve, and how they craft their messaging. It will become increasingly difficult to speak authentically with one voice to such a bifurcated American public.

MOMENTUM

From one size fits most
To overt stratification
#2: Rising inequality

**Signals**

**$1M**
Difference in median household net worth between top 10% and middle 40% classes in 2013.

**50%**
Share of global wealth projected to be controlled by millionaires in 2019.

**+10%**
Increase in share of US income by the bottom 50% income class from 1970-2017.

**+19%**
Increase in share of US income by the top 10% income class from 1970-2017.

Source: BCG, Deloitte
#2: Rising inequality

Why it matters to public libraries

Libraries provide resources that are useful for everyone and help close the inequality gap

"There is a danger in many communities that libraries are seen as a social services agency. We need to balance the social services mission with meeting the needs of all incomes and demographics."

- **Chief Officer**

"Libraries should aim to be a good resource for anyone regardless of socioeconomic status, race, or ethnicity."

- **Library Patron**

"You see a lot of diversity once you walk into a library. We are positioned as open spaces, which means working with all types of people."

- **Chief Officer**

The income and achievement gap continues to grow in the U.S., leading to overt stratification

- **35%** Increase in the achievement gap between rich and poor students on standardized tests compared to 25 years ago.

- **9X** Average difference in income between America's top 10 percent and bottom 90 percent.

- **21%** Of all children live in poverty, a rate higher than virtually all other wealthy nations.

Sources: ALA, Inequality.org
#2: Rising inequality

Examples that inspire

Jet Smarter

JetSmarter is a members-only private jet marketplace. Customers pay a $11,500 annual fee and a $3,500 one-time initiation fee to access a range of scheduled flights. They can also elect to create their own flights. The U.S. based service plans to launch new routes to Asia this year.

Quintessentially

Quintessentially is a fast-growing luxury personal concierge service aimed at high net worth individuals. The membership-based service ranges from $1,500 to $45,000 per person per year in exchange for bespoke travel experience curation, art advisory, and more.

Cricket Wireless

Cricket Wireless addresses the lower socio-economic segment of the mobile phone market with prepaid plans and lower-cost phone models. Recent estimates approximate that Cricket has five million customers across the United States.
#3: Conscious capitalism

While capitalism was advanced as a viable economic model by past generations, the current generation is asking how capitalism can be used to advance their own set of values. Holding companies accountable to a social, environmental, and financial bottom line has become so commonplace that Corporate Social Responsibility is now a check-the-box. As millennials age, this trend will continue to become stronger.

**MOMENTUM**

From *either/or*

To *both/and*
#3: Conscious Capitalism

Signals

66%
Of global consumers say they prefer to **buy products and services from** companies that have implemented programs to give back to society.

62%
Of global consumers say they prefer to **work for** companies that have implemented programs to give back to society.

59%
Of global consumers say they prefer to **invest in** companies that have implemented programs to give back to society.

$23T
Total amount of global assets professionally managed under sustainable and responsible investment strategies in 2016. This was a 25% increase from 2014.

Sources: Nielsen, Sustainable Investment Alliance
#3: Conscious Capitalism

Why it matters to public libraries

Libraries are taking an active leadership role in advocating for key sustainability topics

"Libraries have gone robustly into programming and services around climate change and sustainability topics."

- Library Consultant

Sustainable thinking represents a way in which libraries can maximize their impact

The ALA Council adopted the Resolution on the Importance of Sustainable Libraries, which recognizes the unique role libraries play in conversations about resiliency, climate change, and a sustainable future.

"Libraries have a role to play in creating programs with community partners to not only teach but also encourage action around sustainability topics."

- Library Director

Sources: ALA, American Libraries Magazine
#3: Conscious Capitalism

Examples that inspire

**Whole Foods Market**

Whole Foods Market’s founder, John Mackey, is a leading proponent of Conscious Capitalism and has written a book by that title. Whole Foods has been the poster child of the movement that includes treating employees fairly and sourcing food sustainably.

**Seventh Generation**

In an industry like cleaning products where harsh chemicals rule, Seventh Generation has proven that cleaning products can be environmentally sound and that environmentally focused companies can deliver solid financial performance.

**Handprint Parties**

Librarians at Portsmouth Public Library have collaborated with community partners to implement ‘Handprint Parties’, a program designed to connect people to environmental advocacy information and mobilize attendees to take action around sustainability initiatives.
#4: Expectations arms race

Boundaries that traditionally separated consumer expectations across categories have never been more blurry. Digital-first companies are setting the bar for higher quality offerings, better customer experience, and increased access to support. Consumers no longer compare a given experience to similar ones in the same category, but measure against the best experience, regardless of category.

**MOMENTUM**

From comparing experiences within categories
To comparing experiences across categories
#4: Expectations arms race

Signals

75% Percent of business buyers by 2050 who expect companies that can anticipate their needs and make relevant suggestions before they initiate contact, while 73% expect that products they purchase will self-diagnose issues and automatically order replacement parts or service.

64% Percent of consumers and 80% of business buyers said they expect companies to respond to and interact with them in real time.

72% Percent of consumers and 89% of business buyers say they expect companies to understand their unique needs and expectations.

$12.5B Amount invested between 2000 and 2015 by venture capitalists invested in some 230 US-based on-demand companies.

Sources: State of the Connected Consumer, Salesforce
#4: Expectations arms race

Why it matters to public libraries

**Patrons see the convenience and ease of use in other industries and want that same experience with libraries**

"Patrons want convenience of access to materials. Increased convenience and access to discovery is happening in other sectors and patrons want this in libraries as well."  
- Futurist

"Access and convenience are very important to me, especially now that everything is digital and I can access most things from my phone."  
- Library Patron

**Consumers increasingly see customer experience and innovation as primary factors in evaluating a business or organization**

70% of customers say connected processes like contextualized and personal engagement are important to win their business.

56% of customers actively seek to buy from the most innovative companies.

50% of organizations were estimated to have redirected investment toward customer experience innovations in 2018.

Sources: Salesforce, Gartner
#4: Expectations arms race

Examples that inspire

Magic

Magic is a startup targeted towards busy individuals needing a one-stop contact to solve all their needs. The text-based personal assistant service uses actual humans and was one of the early concierge services that has raised millions in funding from top venture capital firms.

MLB Advanced Media

The digital presence of Major League Baseball, MLB Advanced Media has developed a simple, real-time application and website that allows fans to watch games anytime, anywhere.

PLS Connect App

The Pioneer Library System (PLS) in Oklahoma developed an app to combine the physical and digital library experience allowing users to manage their shelves, receive library news, and search the catalogue all from one centralized location.
Artificial Intelligence, robotics, and other automation tools aim to generate cumulative time savings and efficiency gains. As these tools begin to target decision-making and analytically-complex processes, the need for human involvement will evolve. Instead of owning the responsibility to deliver the analytical outcomes, humans will capitalize on other types and forms of intelligence.

**MOMENTUM**

From machines automating processes
To machines perfecting decision-making
#5: The Outsourcing of Intelligence

**Signals**

$39B

Projected size of global artificial intelligence market in 2025 (2015 - $644M).

85%

Projected percentage of customer service interactions powered by AI in 2020.

Deep Patient is a program run by the Mount Sinai Hospital that applied deep learning to the database of records (test results, doctor visits, etc.) from 700K patients. The program showed improved disease detection for diseases that have been traditionally hard to diagnose.

DeepMind, the Google subsidiary that is responsible for much of its advanced artificial intelligence research, has saved 30 percent on its energy bills by improving the efficiency of its cooling systems through use of Artificial Intelligence.

Sources: eMarketer, Forbes, Gartner
#5: The Outsourcing of Intelligence

Why it matters to public libraries

Libraries are seeking to better use data and analytics to improve their service and measure impact

"Libraries are only beginning to understand how they can use their data to optimize service, messaging, and cost efficiencies."
- Library Consultant

"It would be interesting if my library had better recommendation systems based on what I have read or researched."
- Library Patron

"Libraries have a lot of measures for tracking use but not enough measure for gauging impact which is a critical need to pursue funding opportunities."
- Chief Officer

Artificial intelligence stands to change the role libraries have in information management and workforce development

Artificial intelligence is a power tool for scholarship that enables search and analytics across the vast collections libraries possess.

47% of US workers have a high probability of having their jobs automated over the next 20 years; libraries will likely play a critical role in retraining and aiding workforce development.

Machine learning and AI may be used to extract trends and key findings by connecting various data sources and collections.

Sources: Stanford, Brookings
DeepMind is the AI research arm of Google that is behind AlphaGo, the computer system that defeated the world’s greatest human ‘go’ player. Most recently, AlphaGo was beaten by AlphaGo Zero - a newer version of itself that was trained in a span of a month and without any human intervention.

Superhuman has created an AI-based algorithm that auto-triages, pulls out insights, and brings in context for consumers’ email. By leveraging the technology, they aim to make email more efficient and reduce the 3B+ human hours spent on the mundane activity a day.

The NTU Student Dashboard developed at Nottingham Trent University measures student engagement with their courses, looking at factors like library usage and assignment submissions, allowing them to benchmark against others.
#6: Redefining public space

The function of physical spaces and their ability to shape the way humans think, work, and interact is now a focal point in modern design. Companies and organizations are reconstructing their environments to increase productivity and bolster the customer experience. Concepts such as creative placemaking, makerspaces, and design and experiential thinking demonstrate the refined role that space plays in daily interactions.

**MOMENTUM**

**From** a provider of space  
**To** an incubator of creativity
#6: Redefining public space

**Signals**

**Retail Trends**
- 38% of retailers are investing in new customer service initiatives like personalization.
- 79% of consumers believe the retail/brand experience is important in determining where and how frequently they shop.

**Maker Movement**
- 26% of cities currently have a "maker space".
- Maker spaces help draw production back into cities where consumption occurs, providing huge economic and social benefits.

**Design Thinking**
- Designers and creators across all industries are refocusing their efforts to make decisions based on customer needs instead of instinct.

Sources: FastCompany, CDN
#6: Redefining public space

Why it matters to public libraries

Libraries can use their space and resources in innovative ways to engage with their patrons and community

"There is competition on who gets to be the "hub" of the community. I’d say far and away the library is holding on to this open community space."

- Library Director

"The library can be a powerful enabler of collaborative work by providing space, technology, and resources."

- Library Patron

"A lot of libraries are looking more at outreach efforts that are active and different in a way that inspires people to make a connection."

- Futurist

Libraries are re-thinking how their space can be used amidst the digital revolution and a smaller need for physical books

24%
Of library patrons support the idea of moving books and shelves for more community and tech-oriented spaces.

62%
Of academic libraries repurposed space for collaborative work and tech learning spaces.

Sources: Pew, ALA
#6: Redefining public space

Examples that inspire

Today at Apple

Today at Apple was an initiative launched in 2017 where hands-on educational sessions ranging from music to design to coding were offered for free in 495 Apple stores. Apple also offered free programs for families, educators, and small businesses.

Courtyard by Marriott Bistro

The Courtyard Bistro is a “coffee house meets open kitchen” concept that transformed the traditional buffet-style café area in the lobby to a bustling bistro concept where guests hang out and enjoy the space. The concept has resulted in a 27% increase in guest intent to recommend and return to Courtyard.

DC Public Library Dream Lab

The DC Public Library opened the Dream Lab that provides free-coworking space to cardholders in exchange for a minimum of one hour of public programming per month related to information technology and/or digital literacy.
The right to privacy is an essential part of intellectual freedom. As new digital technologies demand more personal information and are embedded into aspects of everyday life, the dynamics of privacy and its value to society and individuals is changing. Trends such as the Internet of Things, mobile device ubiquity, and an entire generation of "digital natives" will continue to shape the meaning of privacy and the extent to which individuals can control their information.

MOMENTUM

From privacy as a luxury
To privacy as a necessity
#7: Privacy

Signals

01

Data is being generated at an incredible rate, in the realm of quintillions (30 zeros) of bytes of data every day as estimated by IBM. This will contribute to an information "big bang," the doubling of the volume of digital information across the world every two years.

02

The constant flow of online and digital interactions means that the privacy policies of today are often ineffective as it is unrealistic for consumers to be familiar with all the terms, policies, and conditions for every digital service they use.

03

Businesses have the ability to use, analyze, and interpret data in ways that extend past the average persons’ understanding. As a result, most people don’t have the baseline knowledge to understand the terms and conditions on which information is collected about them.

Sources: Pew, Brookings
#7: Privacy

Why it matters to public libraries

Public libraries are ahead of the vast majority of businesses in respecting patrons privacy. They are in a position of public trust.

"Libraries have a commitment to privacy. Many bylaws and library mandates do not allow retention of patron records."

- Library Consultant

"Libraries sit on massive amounts of data and they have been firm about maintaining that trust and privacy."

- Library Consultant

Consumers are increasingly wary of how companies use their data and want to take more active control of what they share.

86% Of internet users have taken steps to hide or remove their digital footprint and would like to do more if they were provided the proper tools and education.

91% Of adults agree that consumers overall have lost control of how companies and organizations collect and use their personal information.

62% Of customers are more afraid that their data will be compromised compared to two years ago.

Sources: Pew
#7: Privacy

Examples that inspire

**GDPR Edge**

BDO USA, Intel, and Microsoft collaborated with Intraedge to launch a blockchain-centric solution for GDPR. GDPR Edge enables companies to keep accurate records while maintaining consumer access and transparency.

**Data Breach 411**

Data Breach 411 is an app that provides state statutes on data breach laws and allows in-house counsel and data privacy officers to understand what they need to do and who they need to notify in the event of a data breach.

**Library Freedom Institute**

The Library Freedom Institute is a six-month program developed by New York University and the Library Freedom Project. It is focused on privacy tailored to teach and provide librarians with the skills and knowledge necessary to become Privacy Advocates.
#8: Gamification

Gamification, the application of digital game design and gaming concepts to different professional and educational settings, continues to rise in popularity as a powerful way to teach and engage audiences. Improvements in technology have enabled the growth of mobile and traditional gaming as well as new dimensions such as augmented and virtual reality, which promise numerous and novel ways to engage with content.
#8: Gamification

**Signals**

Gamification elements being integrated into customer experience

- Badges
- Leaderboards
- Points
- Levels

**Key trends**

- 2017: $2.17B
- 2023: $19.39B

Projected growth of the gamification market (44% CAGR).

- 10,000 Hours

Amount of time the average 21 year old American citizen has spent playing video games.

Amount of time American students spend in class between 5th grade and graduating high school.

Sources: Mordor Intelligence
#8: Gamification

Why it matters to public libraries

By leveraging gamification trends, public libraries have an opportunity to re-imagine several of their core services. Doing so would take very little investment and would be low risk. Yet, there is a strong potential for improved library patron experience.

"Involvement in our voluntary library reading program jumped from 17% to 80% after we implemented a game called 'Conquest of the Realm'."  
- Librarian

"For librarians, gaming and gamification could be used for everything from HR to process improvement."
- Librarian

74% Of 694 K-8 teachers surveyed used digital games for instruction.  
80% Of students use some form of mobile technology to help them study.

Sources: Pew, ALA
#8: Gamification

Examples that inspire

TurboTax

TurboTax, a do-it-yourself digital tax software, combines an intuitive interface with a personalized “choose your own adventure” type experience that has helped the company become a market leader in tax software.

Nike+ Fuel

The Nike+ app helped users track their running data by incentivizing them to collect achievements and share their performance and statistics on social media. Leaderboards helped create competition and Nike+ has transformed into a running community.

Pokémon Go Library Scavenger Hunt

Cal Poly Pomona Library launched a Pokémon Go library scavenger hunt to create a self-guided experience for students to introduce themselves to different library resources and to experiment with augmented reality.
Although the increased digitization of work processes and the proliferation of sensors have laid the groundwork for the big data revolution, traditional investment overly focuses on collecting, integrating, and analyzing existing sources of information. Making the leap to ‘big meaning’ requires organizations to selectively identify and decipher nontraditional sources of information. The focus of analytics will shift from conducting analysis using a broad set of data to pursuing data thoughtfully and deliberately.

**MOMENTUM**

**From** data party

**To** data deliberate
#9: Big meaning, not big data

Signals

Companies across multiple industries are investing in infrastructure to support data collection from non-traditional sources

56%  
Forecasted growth in market for big data and business analytics from $130.1 billion in 2016 to more than $203 billion in 2020.

364,000  
Projected increase in the number of job openings for all US data professionals between 2015 and 2020.

153 exabytes  
Total amount of data collected by total health care in 2013.

50 petabytes  
Total amount of data collected by an independent hospital with 500 beds.

500 Beds  
8000 Employees  
400 Applications  
500 Databases  
1000 Interfaces  
10000 Desktops  
500 Owned Tables  
2000 Owned Phones  
Drivers for data collection at an individual hospital with 500 beds.

Sources: IDC, KPCB, Economist Intelligence Unit, IBM
#9: Big meaning, not big data

Why it matters to public libraries

Public libraries must evaluate the value of assessing existing data versus developing new methods to obtain new types of information.

By combining public library data with external data, libraries can demonstrate their impact on the communities they serve.

## Data Collection Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous sourcing</td>
<td>Obtaining information in real time as opposed to snapshots and applying advanced analytics to monitor changes in consumer behavior.</td>
</tr>
<tr>
<td>Experiential</td>
<td>Using surveys or digital collection techniques to collect information from the library patron, providing frequent data snapshots.</td>
</tr>
<tr>
<td>Co-collecting</td>
<td>Partnering with other companies to collect data that they wouldn’t typically obtain.</td>
</tr>
<tr>
<td>External</td>
<td>Aggregating data from third parties or government organizations.</td>
</tr>
</tbody>
</table>
#9: Big meaning, not big data

Examples that inspire

**Netflix**

While primarily known for its personalization algorithms that aim to accurately predict what existing media users will watch next, Netflix also leverages data to decide to create new content for its platform. Netflix famously used analytics to drive its $100 million investment in *House of Cards*.

**Palantir**

Palantir, a startup unicorn, has formed a business around bringing together massive, disparate data sources and scouring them for connections and patterns that aren’t obvious to the human eye. They have generated annual revenues over $1.7B from clients in public sector to CPG.

**Walgreens**

In five years, the Walgreens’ rewards program has grown to more than 150 million members. The data on these members is being provided to Walgreen’s suppliers and is also used to direct marketing efforts and communication campaigns.
#10: Quantified action

Consumers have been increasingly collecting and tracking information about their everyday activities and environment. In doing so, they are hoping to make more informed decisions on routine activities. While the first forays into this trend have produced a lot of data, consumers currently see less value because much of the data collection exists as better documentation rather than insights that lead to a better life. As a result, consumers are now demanding not just data, but quality information and recommendations formed from their data.

MOMENTUM

From life measured
To life elevated
#10: Quantified action

Signals

- **126M**
  - Total number of wearables units shipped in 2017.

- **$72B**
  - Projected global market size of health & self-monitoring category by 2022.

- **200%**
  - Projected 5 year increase in the market size of wearables between 2017 and 2021.

Sources: IDC
#10: Quantified action

Why it matters to public libraries

There may be additional opportunities to drive meaningful and consistent community engagement by catering to library patron’s desire for quantified information about themselves and their communities.

“As personal analytics develop, it’s going to give us a whole new dimension to experiencing our lives.”
- Stephen Wolfram

“For the quantified self movement to become truly useful, our gadgets will have to move beyond the novelty of gratuitous behavioral data collection.”
- Matthew Jordan
#10: Quantified action

Examples that inspire

23andMe is a personal genetics company backed by Google Ventures that has provided genetic analysis directly to its user base of 800,000+ consumers. Valued at $1.75B, the startup recently received a FDA approval to conduct genetic risk tests for their consumers.

Eight Sleep is a smart home startup that provides customers with insights on their sleep patterns. They produce mattresses and mattress covers with integrated sensors that measure the quality of customers’ sleep and delivers a daily sleep report.

OneX is a patented biosensing device that understands how healthy a customer’s diet and lifestyle are by measuring their skin antioxidant level from the palm of their hand. By allowing customers to track how their habits impact their body, they enable them to make better, more healthful choices.
#11: The gig economy

Dynamic networks of shared, coordinated resources are reshaping the way we live and work. The most important of these resources is time. As technological innovation assumes more functional and administrative roles, human interaction is rendered the fundamental tenet of premium service. The gig economy will develop in tandem with consumers’ desire for instantaneous, on-demand service, allowing companies to meet those needs with a flexible, efficient talent pool.

MOMENTUM

From full-time loyalists
To part-time hoppers
#11: The gig economy

Signals

200%
Projected increase in the number of on-demand workers in the U.S. between 2017 and 2021.

57M
Number of U.S. workers in the gig economy in 2018. This is more than 1/3 (36%) of all workers in the country.

1 in 4
Americans earns money from the digital “platform economy”.

22%
Increase in the amount of 1099’s filed since 2000.

Number of employees by job sector in 2017

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>8.4 million</td>
</tr>
<tr>
<td>Construction</td>
<td>6.8</td>
</tr>
<tr>
<td>Gig economy</td>
<td>4.8</td>
</tr>
<tr>
<td>Information</td>
<td>2.7</td>
</tr>
<tr>
<td>IT</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics; Intuit and Emergent Research (Gig)
#11: The Gig Economy

Why it matters to public libraries

By providing access to resources and technology to aid job and career development, libraries play a key role in workforce and economic development. The demand for libraries resources will likely go up, and their role in workforce development will continue to expand as more and more people rely on “gigs” versus careers.

"Libraries, depending on their location and community, have robust models of access that range from access to higher-end tech to providing business plan resources."
- Chief Officer

"The library gives me free access to resources that help me as I search for new jobs."
- Library Patron

62%
Of local libraries offer online career and job-related resources.

33%
Of local libraries offer programs to help adults start a new business.

Sources: Pew
#11: The gig economy

Examples that inspire

**Fiverr**
Fiverr is a freelance marketplace for aspiring “lean entrepreneurs.” Targeting platform services more to its contractors than to end users, Fiverr allows freelancers an opportunity to build a career in a variety of services, including graphic design, digital marketing, and video & animation production.

**Lyft**
From day one, Lyft has been focused on sourcing rides from everyday citizens looking to make some extra money. To that end, it started with a fun, energizing brand, including pink mustaches and fist bumps. The company continues to compete and evolve within the gig economy ecosystem.

**TaskRabbit**
TaskRabbit seamlessly connects handymen with people who need to complete a task around the house or apartment. For heavy-duty tasks like mounting a TV, putting together furniture, or lifting a heavy item, one can quickly get matched with a handyman’s profile, read reviews, and schedule an appointment.
What is a public library trend?

A public library trend in this report is meant to indicate any trend seen repeatedly throughout research or heard several times during stakeholder interviews.

The public library trends included herein are not meant to indicate any positive or negative associations. Rather, these are simply conditions of the current state.

These trends must be considered when forming visions for the “Library of the Future,” as many of these trends indicate a movement in and of itself.
Public library trends

Doing More & More
Libraries are increasingly being asked to provide a wider range of new services. Yet, the demand for current services provided (e.g. books and e-books) is remaining constant. To further complicate the issue, funding for public libraries has steadily decreased since 2004. The convergence of these forces is not likely to change in the near term, meaning libraries will need to find creative ways to do more with less.

Awareness Challenges
The general public is frequently unaware of the resources that libraries provide. While librarians may be aware of their current patrons needs, they still face the challenge of connecting with non-library users. Additionally, as an increasing percentage of library funds comes from local sources, it will ultimately be up to librarians and library agencies to advocate for additional resources.

Serving Diverse Roles
An original purpose of the library was to offer unfettered access and direction to information. While community members continue to value this role, libraries have expanded their roles to include disaster relief center, community center, and cultural preserver. As the rate of technological progress and advance of global warming continues to accelerate, these roles are expected to grow into the future.

Changing Info Paradigm
Information access was once a privileged activity for those with the means to acquire books and periodicals. With the advent of the internet, information which was once rare has become abundant. Thanks to the “Amazon effect,” even information consumers have become impatient. Community members now look to librarians as curators of information in order to discern what can and cannot be trusted.

Advocacy Challenges
As libraries continue to serve a wide variety of community needs, they need to advocate for a wide variety of resources. Often times, however, those who control resources (e.g. boards of directors, and government offices) have an “old fashioned” opinion of the role of a library. When confronted by such persons, library leaders can find themselves challenged to explain their “brand” and the impacts of their services.

Role as Economic Engines
The need and expectation for employment skills and job training classes in libraries has increased. With an ever-evolving skill set needed for individuals to remain competitive in the job market, librarians will need to know which of an ever-expanding set of classes patrons in their community will need.
#1: Doing more and more

Libraries are increasingly being asked to provide a wider range of new services. Yet, the demand for current services provided (e.g. books and e-books) is remaining constant. To further complicate the issue, funding for public libraries has steadily decreased since 2004. The convergence of these forces is not likely to change in the near term, meaning libraries will need to find creative ways to do more with less.

MOMENTUM

From clear focus on select services
To wide variety of services provided
#1: Doing more and more

Signals

- 50% US adults that want libraries to buy high tech devices for common use.
- 21% Drop in SLAA funding from 2006 to 2016.
- 64% Adults that still use the library to borrow print books.

Sources: SLAA Survey, Pew
The Funding for Public Libraries has Stagnated

While some state library agencies have seen flattened or marginal increases in revenues, most of the public libraries’ revenues decreased. This decrease can make coordination and advocacy difficult to maintain (IMLS State Library agencies).

On an individual library level, funding for libraries has decreased since the recession and has yet to fully recover to pre-2008 levels. Funding bottomed out in 2013 and has seen moderate recovery since then; however, voter support for libraries has softened over the years which may become problematic.

The Demand for New Services in Public Libraries is Increasing

According to Pew Research, Libraries are increasingly seen as places to utilize 3-D printers or other high-tech devices. While many of these technologies may be seen as “fads,” their free availability to any library patron reflects positively of libraries to their patrons and members in the community.

Aside from technology access, libraries are expected to offer collaborative working spaces such as innovation hubs, media labs, art studios, and meeting areas. These spaces and services typically require outside expertise and expensive equipment to setup and operate.

The Demand for Current Services in Public Libraries is Constant

Borrowing traditional print books is still the primary activity of library patrons as nearly two-thirds of patrons engage in this activity. While patrons continue to want an increasing number of services and technologies, they do not wish to get rid of traditional material that competes for precious space.

While the demand for more services and collaborative workspaces expands, individuals are still asking libraries to have plenty of individual quiet spaces. According to Pew research, some 79% of Americans still see this as an important aspect of libraries.

#1: Doing more and more

Key drivers of this trend
#2: Awareness challenges

The general public is frequently unaware of the resources that libraries provide. While librarians may be aware of their current patrons needs, they still face the challenge of connecting with non-library users. Additionally, as an increasing percentage of library funds comes from local sources, it will ultimately be up to librarians and library agencies to advocate for additional resources.

MOMENTUM

From public support and awareness
To advocacy and uncertainty
#2: Awareness challenges

Many people do not think of the library as the first place to get information. This may be attributed to people not knowing that the services exist or that some of the existing services do not fit into their typical work routines.

- **90%**: Of libraries offer e-books to patrons.
- **44%**: Library patrons that are aware of e-book availability.
- **59%**: Voters that think library resources primarily come from non-local sources.
- **86%**: Percentage of library resources that come from local sources.

Sources: Pew, Library in the Life of a User
#2: Awareness challenges

Why it matters to public libraries

Librarians will be under pressure to learn new skills & rapidly adapt to trends

- Librarians will need to enact better marketing strategies; only 17% of librarians claim to have an up-to-date marketing strategy.

- Librarians will need to know their community needs as 48% of voters believe libraries should offer activities found nowhere else in the community.

- 56% of individuals expect libraries to help community members find jobs or learn job skills.

Librarians will need to be empowered and comfortable advocating for funding

- The percentage of voters who would be willing to support a bond measure, ballot initiative, or referendum in support of a public library declined from 73% in 2008 to 58% in 2018.

- Only 58% of voters today believe that local funding can make a big difference in library quality versus 81% in 2008.

- Stakeholder interviews indicate many librarians are challenged to communicate the value of libraries to the community and to local government leaders.

- Stakeholder interviews indicate librarians have an inconsistent understanding of how to properly apply for grant funding.

Sources: Pew
#3: Serving diverse roles

An original purpose of the library was to offer unfettered access and direction to information. While community members continue to value this role, libraries have expanded their roles to include disaster relief center, community center, and cultural preserver. As the rate of technological progress and advance of global warming continues to accelerate, these roles are expected to grow into the future.

MOMENTUM

From a repository of knowledge
To a community pillar
#3: Serving diverse roles

Signals

55%  Adults that say libraries contribute when disaster strikes.

64%  Individuals that say the library serves as gathering place to address local challenges.

73%  Adults that expect the library to promote a sense of community amongst different local groups.

Sources: Pew
#3: Serving diverse roles

Examples

Libraries as Responders & Preservers of the Community

- During Hurricane Sandy, New York librarians helped victims fill out relief forms, connect to the internet, attend financial-planning seminars, and attain critical supplies.
- During the 2012 Fort Collins wildfire, the Poudre River Public Library District set up a temporary library at a disaster relief center to provide books for entertainment and laptops to connect with family members and file insurance claims.

Libraries as a Center for Community & Culture

- Libraries have played increasing roles in areas such as public health education (Houston), immigration and citizenship services (Los Angeles), and government job information.
- To prevent cultural loss, states such as Ohio and Washington have used federal funds to digitize thousands of historical and cultural documents.
#4: Changing info paradigm

Information access was once a privileged activity for those with the means to acquire books and periodicals. With the advent of the internet, information which was once rare has become abundant. Thanks to the “Amazon effect,” even information consumers have become impatient. Community members now look to librarians as curators of information in order to discern what can and cannot be trusted.

**MOMENTUM**

From an information center
To a data curator
Signals

74% Adults that say libraries should contribute to helping people decide what information they can trust.

89% Information seekers that claim immediacy as a top priority when seeking information.

73% Information seekers that claim convenience as the most important factor when searching.

Sources: Pew
#4: Changing info paradigm

**Examples**

<table>
<thead>
<tr>
<th>Satisficing</th>
<th>Serving Every Ohioan (SEO) Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Role Theory and Rational Choice Theory indicate that individuals always choose to satisfy their perceived information needs to the extent that the perceived benefits of acquiring new knowledge outweigh the cost (that it will suffice). This leads to the “satisficing” process where an individual decides an alternate approach or solution is sufficient rather than pursue the perfect approach.</td>
<td>▪ The SEO is an initiative run by the Ohio State Library that provides access and IT support to all member libraries for the purpose of expanding available materials. The initiative has helped rural and suburban communities expand their set of available knowledge to better compete with smartphones and the internet.</td>
</tr>
<tr>
<td>▪ This phenomenon challenges libraries and librarians to develop the most frictionless, seamless, and intuitive information acquisition processes for library patrons in order to compete with the convenience of smartphones and the internet.</td>
<td></td>
</tr>
</tbody>
</table>
#5: Advocacy challenges

As libraries continue to serve a wide variety of community needs, they need to advocate for a wide variety of resources. Often times, however, those who control resources (e.g. boards of directors, and government offices) have an “old fashioned” opinion of the role of a library. When confronted by such persons, library leaders can find themselves challenged to explain their “brand” and the impacts of their services.

MOMENTUM

From unconditional support
To winning hearts and minds
#5 Advocacy challenges

Signals

46% Voters that say libraries stimulate growth and development.

53% Voters that believe having an excellent public library is a source of pride.

53% Voters that believe the public library does an excellent job of helping prepare kids for school.

Sources: From Awareness to Funding 2018
#5: Advocacy challenges

Research indicates most individuals see the library as a place for books and fewer voters today believe libraries are keeping up with the rate of technological progress than a decade ago.

Sources: Pew, Awareness to Funding
The need and expectation for employment skills and job training classes in libraries has increased. With an ever-evolving skill set needed for individuals to remain competitive in the job market, librarians will need to know which of an ever-expanding set of classes patrons in their community will need.

MOMENTUM

From theoretical learning
To practical application
#6: Role as economic engines

Signals

56% Adults expect libraries to help people find jobs.

42% Voters that feel the library helps provide workplace skills.

97% Public libraries that offer job assistance.

Sources: Pew, Awareness to Funding
Libraries are seen as an economic engine

Examples that inspire

**DC Legal Barrier Program**

The DC public library program, Legal Barriers, is an initiative to assist individuals with a criminal or legally problematic record in attaining jobs. The program provides one-on-one sessions, networking opportunities, and workshops for individuals seeking entry level or low wage jobs.

**Cuyahoga Public Library**

This Ohio county library partnered with their county government and teachers. They worked with the government to help provide food assistance, cash assistance, and Medicaid to the community. They simultaneously worked with teachers so community members can earn GED’s and gain job skills training.

**New York Public Library System**

The New York Public Library System regularly hosts speakers and mentors from the Small Business Administration (SBA). The SBA speakers are essential to the “start-up scene” in NYC; they provide critical resources to many of the small businesses in and around the city.
What is a persona?

Trying to consider every individual customer’s needs, and how to serve them, can be an overwhelming experience. As a result, marketing professionals turn to a number of segmentation techniques to try to make the task of identifying collective customer needs more manageable. Personas are one such technique.

Unlike traditional segmentation methods, which tend to focus on demographics and behavior patterns, personas are focused on customer needs. By aggregating the commonly shared desires of customers, customer “personas” begin to emerge. Focusing on the handful of personas is a much more do-able task than trying to focus on the vast range of individual customers.
Public library patron personas

The Driven Worker
Focused and task-oriented, the Driven Worker uses the library to accomplish daily tasks that cannot be done at home or at work. They believe secluded, quiet spaces will bring them motivation and see socializing as counterproductive. Thus, they don’t want to be interrupted once they are focused. Driven Workers like to solve problems themselves, which can lead to delays in asking for help.

The Lifetime Learner
Compelled to go to the library to discover or learn new things, the Lifetime Learner is constantly seeking new experiences and inspiration. They tend to be drawn to libraries that are aesthetically pleasing, as they believe that you are heavily influenced by your environment. Community is important to them, and they believe that one should support the arts and give back to the best of their ability.

The Conscious Consumer
Focused on inclusion and access, the Conscious Consumer is heavily reliant on the library to connect with the community and access information. They tend to ask a lot of questions and seek guidance on how to properly use resources, and can sometimes appear to lack direction as they are unsure of the offerings and how to access them. Conscious Consumers also tend to be worried about the spread of misinformation and believe the library is a trustworthy place to find quality information.

The Social First
A strong believer in human connection, the Social First goes to the library with the purpose of socializing. The interactions they seek at the library vary from meeting friends to working collaboratively in group settings. In any form, social interactions help them gain a sense of energy or rejuvenation. Social Firsts don’t have a strong distinction between productivity and relaxation, and consider the greatest utility to come through collaboration and person-to-person connections.
### The driven worker

**Behaviors**
- Uses the library to escape from outside distractions
- Sits alone in quiet space, often away from other people
- Goes to the library with the purpose of accomplishing a specific task
- Likely to try to solve a problem themselves, which could lead them to delay seeking help

**Beliefs/Attitudes**
- Sees socializing as counterproductive
- Believes they need seclusion to be productive
- Believes separation between productivity and relaxation is important
- Strongly dislikes interruptions

**Needs**
- Barrier between productivity and relaxation
- Sense of achievement
- Perception of efficiency and directions
- Reassurance that they are on the correct path and will have continuous access
- Focus on covering the basic needs like fast, reliable internet and space to spread out with minimal distraction, not concerned about luxuries
- Facilities, resources, food, and drink so they don’t have to leave the space before the work is done

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**Key Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident</td>
<td>Medium</td>
</tr>
<tr>
<td>Routine-based</td>
<td>Low</td>
</tr>
<tr>
<td>Needs Instruction</td>
<td>Low</td>
</tr>
<tr>
<td>Structured</td>
<td>High</td>
</tr>
<tr>
<td>Social</td>
<td>Low</td>
</tr>
<tr>
<td>Reserved</td>
<td>High</td>
</tr>
<tr>
<td>Flexible</td>
<td>Low</td>
</tr>
<tr>
<td>Self-Teacher</td>
<td>Medium</td>
</tr>
<tr>
<td>Unstructured</td>
<td>High</td>
</tr>
<tr>
<td>Secluded</td>
<td>Low</td>
</tr>
</tbody>
</table>

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“I want to be productive and feel like I’ve accomplished something every day”
The driven worker

Drivers

- Price-conscious
- Environment
- Offerings
- Convenience
- Access

Reliance on Shared Resources

- Uses phone as a for necessary tasks, not “playing around”
- Prefers using personal devices that they already have, otherwise uses library resources such as computers, printers, and internet

Touchpoints

- Frequently heads to the library for internet access, printing, computer use, and/or specific spaces
- Takes advantage of the necessary resources to accomplish tasks
- Utilizes community space and other library offerings once their work is complete

Pain Points

- Misusage of public spaces by other patrons
- Noisy people
- Lack of resources they deem as “basic” such as chargers, plugs, printers, etc.
- Lack of adequate services (e.g. career services, optimized search engine, digital access to journals, etc.)
- Constrained library hours

Opportunities

- Near Term: Increase the number of private spaces (e.g. individual rooms)
- Medium Term: Improved career service opportunities and extended library hours
- Long Term: Improved information matching with AI & ML

“I want to be productive and feel like I’ve accomplished something every day”
The lifetime learner

Behaviors

- Driven to go to the library to discover or learn something new
- Constantly seeking new experiences and inspiration from their environment
- Drawn to libraries that are aesthetically pleasing
- Looking to rent a book that they don’t want to spend money on
- Move around the library over several hours, often from section to section
- Open to socializing, but enjoys time to themselves as well

Beliefs/Attitudes

- Believes they are heavily influenced by their environment, comprised of the space they inhabit and the people that surround them
- Focuses on being productive with their “downtime” by seeking constant intellectual stimulation and surrounding themselves with inspirational people
- Believes that one should support the arts and give back to the best of their ability

Needs

- Sense of purpose and personal growth
- Intellectual stimulation/ growth
- Discovering new things
- Tools to self educate
- Variety of resources that cover many topics
- Space for reflection and thinking
- Open, aesthetically-pleasing space
- Quiet place with low-level noise

Key Characteristics

Confident - Reserved
Routine-based - Flexible
Needs Instruction - Self-Teacher
Structured - Unstructured
Social - Secluded

“I want a purpose-driven life that is fueled by intellectual growth”
The lifetime learner

Drivers

Price-conscious
Environment
Offerings
Convenience
Access

Reliance on Shared Resources

▪ Uses computer or phone to “discover” something new that interests them
▪ Uses phone to keep up with friends on social media and share photos
▪ Tends to be tech savvy as they are driven to be lifelong learners

Touchpoints

▪ Likely to check out at least one book
▪ Uses library computers as search engines
▪ Takes different classes that interest them
▪ Accesses Wi-Fi or hotspot
▪ Looks for opportunities to mentor others in their community

Pain Points

▪ Not enough space to explore and fulfill their creative side
▪ Lack of class variety
▪ Lack of variety of books or availability of alternative texts (e.g. plays)
▪ Claustrophobic spaces within the library

Opportunities

▪ Near Term: Diversify classes, revamp library aesthetic/design, enhance WiFi
▪ Medium Term: Increase digital materials, acquire new tech; more speaking engagements with prominent figures and SMEs, access to MOOCs (e.g. Lynda)
▪ Long Term: Increased SEO and usage of AI & ML to better connect to materials

“I want a purpose-driven life that is fueled by intellectual growth”
The conscious consumer

Key Characteristics

- Confident
- Routine-based
- Needs Instruction
- Structured
- Social

- Reserved
- Flexible
- Self-Teacher
- Unstructured
- Secluded

Behaviors

- Willing to chat, learn about available resources, and how to access them
- May appear unsure of the offerings and how to access them
- May ask a lot of questions and seek guidance on how to properly use resources

Beliefs/Attitudes

- Prioritizes community and believes that it starts with family and grows from there
- Values saving money and is willing to exert effort in order to do so
- Worries about the spread of misinformation and believes the library is a place to find trustworthy, quality information

Needs

- Safe, welcoming environment
- To feel comfortable asking questions
- Librarians to guide them through the different resources
- Easy access to a variety of sources

“The library is a place for everyone”
Reliance on Shared Resources

- Uses their phone for a wide variety of reasons, to include streaming videos, emailing, and browsing the internet.
- Frequent user of shared resources; uses library computers and printers for critical functions like job applications, homework, taxes, etc.

Touchpoints

- Frequently heads to the library for internet access, printing, computer use, and/or specific spaces
- Utilizes community areas to get involved with local neighbors
- Takes advantage of any resources that the library provides

Pain Points

- Lack of resources and/or events
- Room/space for separate needs (e.g. for kids to play and adults to explore)
- Awareness of what resources are available and how to access them
- Trained staff to assist with technology use and library navigation
- Potential for a language barrier to exist

Opportunities

- Near Term: Expand digital materials and work materials into existing workstreams
- Medium Term: Improved career services, community programming, technology classes, etc. within the library
- Long Term: Investment in technologies not easily accessible to the public
The social first

“"I want to hang out and connect with people that I enjoy””

Key Characteristics

- Confident
- Routine-based
- Needs Instruction
- Structured
- Social

- Reserved
- Flexible
- Self-Teacher
- Unstructured
- Secluded

Behaviors

- Tendency to “kill time” between commitments
- Goes to the library with the purpose of socializing
- Meets friends at library before/after social events (e.g. dinner, movies)
- Working collaboratively in a group setting
- Gains a sense of energy or rejuvenation from interacting with other people

Beliefs/Attitudes

- Believes strongly in human connection through friendships and relationships
- Doesn’t have a strong distinction between productivity and relaxation
- Considers the greatest level of utility to come through collaboration and social interaction rather than individual workstreams

Needs

- Self-expression
- Reassurance that they are allowed to make noise
- Connection with others
- To be heard/ understood
- Space where socializing is encouraged
- Community events and activities
- Access to games/media
- Curated recommendations from librarians or other community members
The social first

Reliance on Shared Resources

- Uses social media to connect and express themselves
- Always communicating through technology, whether its on a phone or computer
- Checks library website for events, but also speaks with others in the community for ideas on events/activities

Touchpoints

- Library website
- Library social media
- Community members
- Librarians
- Social and group work spaces within the library

Pain Points

- Lack of spaces where they feel comfortable to make noise and have lively conversations
- Want events to "find them" through social media or recommendations as opposed to having to check the library website
- Lack of notification of upcoming events
- Lack of events and engagements

Opportunities

- Near Term: Increase community space allocation
- Medium Term: Encourage individual promotion on social media
- Long Term: Incorporate AI & ML to better connect with patrons

“I want to hang out and connect with people that I enjoy”
What is a journey?

A journey is a plausible, hypothetical experience from the lens of a particular persona. Journeys are meant to give insight on the range of experiences shared by a group of customers. Businesses can gain insight on how to improve customer satisfaction by studying the “pain points” and “hero moments” associated to each of these experiences.
Public library patron journeys

A Driven Worker’s Nightmare
The journey is meant to highlight a plausible, highly negative experience within the context of the Driven Worker persona. Studying this hypothetical journey highlights some of the pain points that can be experienced by all library patrons.

A Satisfactory Learning Experience
This library patron journey represents a largely neutral experience through the lens of the Lifetime Learner. While the Lifetime Learner experiences some positive moments at the library, there are also some moments where their experience is lacking.

A Moving & Conscientious Experience
In this scenario, the Conscious Consumer has a positive and enriching experience at the library that leads them to be an advocate for the library. Studying this experience highlights what success looks like and how it can be reinforced.

A Social Opportunity
This scenario outlines an opportunity for librarians and public libraries to create positive experiences for community members through a social lens. Studying this experience reveals community engagement “hero moments” and “pain points.”
A driven worker’s worst nightmare

“I have the option of working remotely and I really do not want to head into the office today. I need to find an appropriate workspace and complete my work”

Awareness

1. I need to find a place to complete my work
2. I consider my requirements for the given task which are space, solitude, high speed Wi-Fi, printer access, coffee, food, power outlets, charging areas and assistance with information access
3. What are my options? Home, coffee shops, fast casual restaurants, or libraries

Consideration

4. My home does not have enough space and has too many distractions to work efficiently
5. Coffee shops and fast casual restaurants do not have printers, assistance, solitude, enough power outlets, or fast enough internet
6. Libraries have printers, Wi-Fi, space, assistance, and potentially power outlets and chargers
7. Library does not have coffee or food within space or nearby. Food and drink may potentially not be allowed
8. I decide on library because it satisfies more of my requirements

Planning

9. I look up local libraries on my phone (or computer)
10. I look at social media, google, and library websites to determine if my local library suits my needs
11. I decide on my local library and travel to it
A driven worker’s worst nightmare

“I find the Wi-Fi minimally viable; its slow and is holding up my work”

Entry/Exploration

12. I enter library and inspect available resources
13. I find an appropriate computer cluster or workspace. (Check out laptop if necessary)
14. I check to see if there are enough electrical sockets near the workspace
15. I connect to Wi-Fi
16. I find the Wi-Fi minimally viable; its slow and is holding up my work
17. I begin individual work

Work Phase

18. I get work materials out and setup
19. I need more outlet plugs
20. There are not enough plugs to charge all devices
21. I forgot my charger at home
22. There are no chargers or charging stations available in the library
23. I do not have enough information to complete my work. I need more data
24. I ask a librarian in person
25. The librarian takes too long or references irrelevant material
26. I use “ask a librarian” online service or chatbot
27. The response takes too long, or information is useless
28. I search online databases, journals, and virtual reference materials
A driven worker’s worst nightmare

```
Work Phase

29. The database search engine returns irrelevant results
30. I cannot sift through materials in an efficient manner
31. The database is not comprehensive enough to include relevant materials
32. The database returns book results that are not digitized or are located in another library
33. I have been working awhile and want coffee and/or food
34. I have to walk outside and go somewhere else to get food and/or a drink
35. Food and Drink not allowed in the library
36. I need to print something for work
37. I need to log onto a separate computer to print
38. I’m feeling frustrated. Things seem unnecessarily complicated or difficult compared to what I’m used to, especially with online retailers and engines

Exit/Discovery

39. I leave the library because the space is unsuitable for my needs or the library does not provide expected resources

Post-Visit Reflection

40. I go online and negatively rate the library on Yelp
41. I look for alternatives to the library to better meet my needs
42. I tell people about my frustrations with the library
43. I maintain the memory of being frustrated with the library

“I’m feeling frustrated. Things seem unnecessarily complicated or difficult compared to what I’m used to, especially with online retailers and search engines”
```
A satisfactory learning experience

Awareness
1. I discovered a new topic that interests me while browsing on my phone
2. I run a preliminary search on my phone/computer/tablet which returns a plethora of information
3. I search for books on Amazon, videos on YouTube, online news articles, classes to take on the subject, and my local library website
4. The local library website is a little difficult to navigate
5. I weigh my options

Consideration
6. I do not want to spend money on a book from Amazon or for a course on the topic
7. Information from Google, YouTube, and Wikipedia is not curated and is either overwhelming or insufficient for my needs
8. The library website lets me reserve or request books on the topic
9. There is not access to virtual reference system from my phone or computer at my own convenience
10. I decide that the library is the best option

Planning
11. I find a library that is either convenient or interesting to visit
12. I try to reserve a book online from the library website or app
13. The book is not available at my local library but can be brought there from another library in the system
14. I reserve or request my book so that it is ready when I arrive
15. I go to the library when my book is expected to be ready for pick up
A satisfactory learning experience

Entry/Exploration

16. I interact with the librarian or staff attendant to check on a book
17. The book is not in the correct location/is not on reserve
18. I instead explore the library space
19. I find a comfortable or pleasing area of the library to read on my phone or computer or access the VRS system
20. I connect my mobile device or laptop to the library Wi-Fi
21. I begin to learn and explore my topic

Work Phase

22. While researching, I come across an idea or concept which is unfamiliar
23. I ask a librarian in person
24. The librarian informs me of free classes related to the subject at a later date
25. The librarian also directs me to resources that are available at other libraries which can be requested and brought here
26. I have been working awhile and want coffee and/or food
27. I feel stressed because food and drink are not allowed in the library
28. I must walk outside and go outside vendor
29. I get up and move to a more open space to refresh my mind and stretch my legs and find some inspiration
30. I feel I have accomplished what I wanted to today at the library

“I feel stressed because food and drink are not allowed in the library”
A satisfactory learning experience

Exit/Discovery

31. I check the community board and ask the librarian if there are any activities going on later
32. I make a plan to engage in a separate activity later
33. I leave the library satisfied

Post-Visit Reflection

34. I plan on returning to the library to complete my research on another day
35. I tell my friends and others that the library was a great way for me to explore a new topic
36. I look on the library website for future events that may interest me
37. I found that my visit to the public library sufficiently met my needs

“I look on the library website for future events that may interest me”
A moving & conscientious experience

**Awareness**

1. I want to get involved with my local community
2. I think of all the different ways to get involved
3. I can go to town halls/city council meetings
4. I can volunteer at a charity or religious institution
5. I can go to the library and get involved with local community events there

**Consideration**

6. Town halls and city council meetings are a great place to discuss and voice concerns, but not to get involved
7. Charities and religious institutions are great for providing services to specific groups, but may not align with my interests or only address issues or communities specific to a religious belief
8. The library is a place where community members can come together to discuss issues and take action
9. I feel like the library is a place where everyone is welcomed and can access resources
10. I decide to get involved with events and services at my local library

**Planning**

11. I look online for opportunities to get involved with events at my local library
12. I register to volunteer for a community event
13. I call the library and talk to staff who provide me with information I need to prepare to help and encourage me to reach out with any questions
14. I go to the library to assist with the program

“The library is a place where community members can come together to discuss issues and take action”
A moving & conscientious experience

Entry/Exploration

14. I interact with the librarian or staff attendant to check in for the event
15. The individual helps me get situated and shows me all the resources available within the library
16. I learn from a community board that other events are planned that were not posted on the library website
17. The resources available at the local library standout to me and I become interested in how much I could accomplish at the library
18. I begin to engage with organizers of my community event

Work Phase

19. The librarian and organizer of my event explain my role and the impact that our work has within the community
20. While working the event, an additional piece of information is needed that no one seems to be able to acquire
21. I ask a librarian in person
22. The librarian shows me how to use the online computer resources and directs my research in the right direction
23. While the library has resources to assist me, it lacks the resources to fully satisfy my needs
24. As the event is going on, it becomes apparent that the library community space is too small
25. I connect to the Wi-Fi to access additional information and communicate with my family
26. I find that the connection at the library is better than the connection at my home so I can be more productive
27. I become concerned about how I will access this connection after hours
28. The event concludes

“While the library has resources to assist me, it lacks the resources to fully satisfy my needs”
**Exit/Discovery**

29. Eager to get more involved, I ask the librarian or staff member about future events and opportunities

30. The librarian or staff member suggests different ways I could help and recommends opportunities that are available and make the sense for me

31. I leave the library feeling more engaged with the community and I am more aware of resources that the library provides

**Interpersonal Advocacy**

32. I advertise my involvement or event at the library through social media

33. I tell others about my involvement at the local library at other community, charity or religious events

**Governmental Advocacy**

34. At town halls or city council meetings, I support initiatives about, or speak in favor of, public libraries

35. I have become involved in the community through the library. I appreciate the public library and advocate for the resources it provides

“A moving & conscientious experience

“I leave the library feeling more engaged with the community, and I am more aware of resources that the library provides”
A social opportunity

“A want to plan a public event with my friends and I’m curious to know where we can plan it, when we can host it, and how we can leverage community resources.”

Awareness

1. My friends and I want to host a public event
2. We explore the options available to us
3. We can hold the event at a conference center or convention center
4. We can host at religious center, school, or university
5. We can hold the event at the public library

Consideration

6. A conference or community center could be too large or too expensive
7. Religious center usually requires affiliation and can be strict about usage
8. Schools and universities can be restrictive and difficult to schedule
9. The public library is an inexpensive, open, and more intimate setting
10. My friends and I decide that the library is the best place for us to hold our event

Planning

11. I begin to search available libraries
12. Based on my online research, I find a couple of libraries that seem right
13. I feel frustrated because I cannot check the libraries’ websites for availability or make an online reservation
14. We decide the best course of action is to go in person to each library to figure out what makes the most sense
15. I go to one of the libraries we listed
A social opportunity

Entry/Exploration

16. I take a preliminary look at the available space
17. I find that the space meets the event’s needs
18. I receive a message from my friend that one of the other library spaces has everything that we are looking for
19. I talk to a librarian about our event and ask about the space availability at the library and how it compares to the other space my friend mentioned
20. The librarian tells me why they think the other library is a better place to host our event. I admire and appreciate her honesty
21. As we plan, I notice that the public library is connected to both community organizations and residents and can help advertise our event
22. We realize that food and beverages are not allowed to be served in the library
23. The library has a strong A/V system
24. We decide to host the event at the librarian’s recommended location

Setup

25. We enter the library to setup and talk to the librarian about the day’s logistics
26. The librarian is very helpful and offers their encouragement and support for the event

“As we plan, I notice that the public library is connected to both community organizations and residents and can help advertise our event”
A social opportunity

Event

27. Our event experiences a technical issue, and we inform the librarian
28. The librarian is able to contact their library’s technical staff who assists us and gets our event back on track
29. Our guests have a difficult time finding facilities and connecting to the Wi-Fi during our event
30. The librarian and their staff go out of their way to assist our guests and make sure our event goes smoothly
31. The guests are curious about the technology and materials within the library
32. The librarian showcases the library and gives demonstrations of what is contained within
33. The event at the library is successful and our group and our guests are happy with the result

Advocacy

34. Our friend group and guests promote the public library through word of mouth
35. We become more inclined to support initiatives that assist public libraries
36. Due to our positive experience at the public library and with the librarian, my friends and I have become supporters and advocates for the library

"Due to our positive experience at the public library, my friends and I have become supporters and advocates for the library"
What is a future state concept?

Future state concepts are brief snapshots of the range of possibilities for an organization. No single concept will cover the complete vision for an organization. Rather, each concept is an aspect of what an organization could look like.

Each future state concept should be reasonable, founded in research, and grounded by common sense. Yet, each concept is meant to be a stretch – something conceivable but aspirational. By studying a collective set of future state concepts, an organization can identify actionable solutions to bolster their position.

There are examples of libraries realizing some of these concepts already. Because the library landscape varies throughout the country, however, those concepts have still been included.
Library of the future concepts

Libraries have Data on the Impacts of Their Services
Libraries have vast data on the impact for all of the services they offer. Librarians use this data to support their intuition behind the services they should and should not offer based on the size, resources, and funding of their local communities. Additionally, all public libraries have access to a gamified resource center that helps them shape their understanding of how to measure library services against a national baseline.

Libraries are Connected Preservers of Culture
The library connects its patrons to data and information not only from around the world, but also from the library's local community. From state documents to ancestral records and family trees, libraries can serve as conduits into a local culture’s past and present for all to see. By preserving and connecting records, libraries can provide a sense of identity, continuity, and context in a world inundated with uncertainty and confusion.

Libraries are Data Centers
Libraries are the go-to center for quality datasets, which are treated by public library leaders with the same care and attention as books and e-books. Because of their diligence and reliability managing datasets, libraries have a strong brand image as our society’s forward-thinking, tech-savvy information providers.

Library Patrons are Advocates & Influencers
Libraries are proactively engaged and connected with the community while encouraging individual patrons to promote the material, services, and value that a library provides. Local community members reliably and positively influence funding referendums, obstinate governmental officials, and board members.
Library of the future concepts (continued)

Libraries are Local & National Digital Platforms
Public libraries are trusted, respected platforms whereby community members can freely exchange goods and services, upload personal stories, and collaborate. In addition to the local platforms established in all libraries, public libraries are connected through a national digital platform.

Libraries as Lifelong Learning Centers
Libraries partner with education platforms to continue to facilitate learning programs for all age-groups through nationwide programs. Libraries continue to prepare patrons for the current workplace, offer courses of interest to the local community, and develop their own certification system.

Library Leaders are Civic Leaders
Libraries are at the heart of the communities they serve. While these communities continuously look to address common public issues, libraries promote access to diverse ideas and serve as a depository for vital information from government, community, and other sources. Libraries are considered a top-of-mind resource for becoming more civically involved. Accordingly, libraries serve as an intellectual and service hub for civic engagement for all people.
#1: Libraries have data on the impact of services

Libraries have vast data on the impact for all of the services they offer. Librarians use this data to support their intuition behind the services they should and should not offer based on the size, resources, and funding of their local communities. Additionally, all public libraries have access to a gamified resource center that helps them shape their understanding of how to measure library services against a national baseline.

MOMENTUM

**Once was** an inconsistent landscape of expectations

**Now is** an informed, standards-driven landscape
#1: Libraries have data on the impact of services

Vision

After the roll-out of the Measures that Matter initiative, there is a wealth of data on the impact of the services each library provides. Data on the impacts are normalized to reflect the size and resources of local communities. Public library leaders and government officials enjoy an abundance of information on usage and performance metrics for each service, made available though a resource center on a national digital platform.

The resource center provides estimates on how much each library service should cost and how much utilization and impact it will likely have. The resource center has gamification features whereby libraries can test their performance relative to national data and explore the possible benefits of adding new services.
Imagine

Meg, a librarian respected and admired by her community, has a strong intuition that her community would benefit if their library had faster internet and a digital literacy center with a full time employee. She knows her city council will resist the idea until they understand the tangible benefits. So Meg sets up a council meeting to build the case...

With faster internet and a digital literacy center, we could improve the per capita income by 5% in the next 8 years.

I'll show you. Why don't we do a simulation together?

Meg opens the impact simulation website...

This simulation leverages 10 years of national library data to show us our projected impacts.

Wow!

Lets do it! And can you help the rest of us measure efforts & forecast impact like the library does?

That sounds great! But where did those numbers come from?

Of course! That's what we're here for!
#1: Libraries have data on the impact of services

Justification

Quantified Action
By having data on impacts and guidance for library services, library leaders will be empowered to learn from their usage data by comparing it to national averages and commonly accepted standards.

Gamification
A data & guidance resource center would have numerous options to include gamification features. For example, such a resource center could include leaderboards and rankings. Additionally, there are ample opportunities to create simulation tools whereby leaders could test the idea of adding or adjusting services.

Doing More & More
Libraries are increasingly being asked to provide new services. Adding these services, however, can often be a leap of faith, as there aren’t many resources for providing guidance on the estimated cost and impact of services. A standards and guidance resource center would reduce uncertainty and support decision making.

Advocacy Challenge
Having commonly accepted standards and guidance would help public library leaders in building the “business case” for resources they request from government officials and board members.

The Driven Worker
Some of the pain points identified through the “Driven Worker” persona include misusage of public spaces by other patrons. Being able to gauge how library services should perform will help to ease the problem.

The Conscious Consumer
Conscious Consumers have a high demand for the shared resources provided by public libraries. Accordingly, they generate a lot of usage data which could be evaluated against a set of commonly accepted standards to determine how well services are performing relative to guidance.
#1: Libraries have data on the impact of services

Benefits

Using a data-driven strategy to measure the impact of libraries and empowering library leaders with data has three benefits:

**The Impacts of Libraries are Better Understood & Communicated**
A data & guidance center would be an excellent tool for telling the story of the benefits of libraries on society, particularly if there were a tool with gamification features.

**Libraries have More Compelling Cases for Requesting Resources**
It is difficult to find clear, data-driven guidance on what to reasonably expect from a set of library services. As a result, library leaders can have challenges building “business cases” when requesting resources. A standards and guidance center would improve this condition.

**Libraries Can Leverage Data & Simulations to Support Decisions**
Presently, librarians don’t have a lot of tools for testing service options, or at least for getting an estimate of what impacts they will likely have. As a result, libraries often have to go “all in” on new initiatives before truly having an understanding of their impacts. A guidance center would help to mitigate this condition by giving library leaders up-front information to shape their decisions.
#1: Libraries have data on the impact of services

Outside industry examples

Stitch Fix is an online subscription and personal shopping service in which customers identify their style preferences and then a stylist sends them articles of clothing consistent to their preferences. The customer keeps the clothes they want and sends back the rest. Through this exchange, Stitch Fix is able to collect data about the preferences of each of their customers, and also the success of each item they purchase. Accordingly, they are a great example of how to leverage data to measure success and shape decisions on future initiatives (what clothes to buy and what markets to compete in).

The United States Special Operations Command executes extraordinarily challenging, risky missions. But not all of these decisions can be supported by data. The Special Operations Mission Training Center (SOMTC) is responsible for simulating and wargaming major decisions, particularly those that have to be made in the absence of data, before they allocate resources towards them. They are therefore a great example to study for situations where collecting data and using it to inform decisions simply isn’t possible.
Stitch Fix is a great example for using data to inform decisions

**What is Stitch Fix?**
An online subscription and personal shopping service that uses data to measure the success they are having with customers and to inform buying and marketing decisions.

**Stitch Fix’s Key Features**

**Starting with Data on Customer Preferences**
All new customers start their service with Stitch Fix by filling out a survey about themselves and their preferences. This allows the company to pleasantly surprise their customers the first time they serve them.

**Continuous Feedback Loop on Customer Preferences**
Stitch Fix’s stylist always give their customers five options to choose from. Depending on the customers selection, they can refine the next options they provide, creating a constant feedback loop.

**Ability to “Fail Fast” with New Initiatives**
Stitch Fix doesn’t have to buy a large amount of inventory at once. They can introduce a few items at a time to customers, then make purchase decisions with better data.

**Challenge:**
Predicting fashion trends is a near impossible task. Consumer preferences change quickly, making purchasing decisions difficult at best. As a result, many fashion firms try to learn about customer needs by studying their past purchases and online browsing behavior. But few firms explicitly ask customers for their preference and collect info on their decisions to cater to their specific tastes.

**Solutions:**
Stitch Fix has taken a lot of the guess work out of managing their inventory. By clearly asking their customers about themselves and their tastes, Stitch Fix starts the customer relationship in a better position than other firms in the industry who rely on intuition to estimate their customer’s needs. Stitch Fix continues to refine their knowledge of customer’s individual tastes by tracking what goods they like and don’t like. As a result, Stitch Fix can make much better informed decisions on what inventory to purchase. They also never find themselves in the position of having to advertise individual items. Rather, they simply reinforce what’s working (items frequently accepted by customers) by buying more of it.
#1: Libraries have data on the impact of services

Libraries could replicate much of what Stitch Fix does well

**Strategy**

Similar to Stitch Fix, libraries could begin relationships by asking for consent to collect surveys on patrons and subsequently track their individual usage. For the consenting library patrons, libraries could use an algorithm to suggest materials and services, then track the success of these recommendations and refine the algorithm based on feedback. Over time, doing so would help libraries measure usage, impact, and develop a database to inform local decisions on service offerings.

**Key Takeaway’s for Libraries**

**Have a Sustainable Model for Informing Decisions**

Libraries could learn from Stitch Fix’s model of informing decisions through data.

**Maintain a Structure that Facilitates Individual Customer Preference Data**

Libraries could also focus on ensuring they have a structure in place that allows them to learn from customer preferences instead of reacting to options already set forth before them.

**Benefits:**

Creating a structure that facilitates data collection of individual library patron preferences and the impact of services would allow libraries to better meet patron needs and more efficiently apply resources.

**Resources Required to Start:**

1. The belief that there should be a structure in place for aggregating data on patron preferences and using this data to inform decisions on service offerings.

2. Library patron consent to sharing their data.

3. Collection plan for what customer data to be aggregated and how to use it.
#1: Libraries have data on the impact of services

Recommendations for using data in a “fashion” similar to Stitch Fix

<table>
<thead>
<tr>
<th>Strategic Outcomes</th>
<th>Tactical Actions</th>
<th>Habits</th>
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<tbody>
<tr>
<td>#1 The story of the impact of libraries is better quantified, communicated, and can be leveraged towards advocacy aims.</td>
<td>#2 Libraries have feedback loops in place to constantly learn about patron preferences and inform decisions on future services offers.</td>
<td>#1 Waive late fees for patrons who are willing to fill out short surveys or serve in control groups for services being tested.</td>
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<tr>
<td>#1 Have a data collection plan in place for all patron interactions and materials and/or services provided.</td>
<td>#2 Seek quantifiable evidence on the “case” behind decisions before making them. Ask “what data suggests this will be successful?”</td>
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</table>
The SOMTC is a great example of testing and rehearsing decisions.

What is the SOMTC?
A branch within the U.S. Special Operations Command responsible for testing and rehearsing major decisions before the command allocates resources.

SOMTC’s Key Features

Methodology and Framework for Testing Options
The SOMTC has a refined, detailed process for testing options. Individuals, or entire units, can check-in to the SOMTC and explain what options they are considering, then the SOMTC can take charge of helping them to test the various outcomes of those options.

Digital Simulation Center
The SOMTC smartly leverages data science and uses digital simulations as a part of their process to test options.

Center for Conducting Rehearsals
The SOMTC provides the resources to conduct rehearsals prior to implementing decisions. Every aspect of an operation is rehearsed, even the process of negotiating the permission to launch an operation in the first place.

Challenge:
The Special Operations Command executes high-risk missions. These missions are often “go” or “no go,” meaning there is no opportunity to conduct limited versions of the missions and see how well their efforts are working before deciding to commit more resources.

Solutions:
Because the Special Operations Command often has to go “all in” on decisions, they created the SOMTC to help them reduce risk. The SOMTC does three things to help reduce risk:

- Leverages a problem framing and “wargaming” framework to help leaders think through all aspects of a problem.
- Leverages digital simulation tools to test scenarios for the quantifiable metrics for the operations.
- Conducts rehearsals for every aspect of an operation.
Libraries could replicate SOMTC’s best practices to test service offerings

Strategy
When libraries are in positions wherein they have to go “all in” on a decision, they could replicate many of SOMTC’s best practices to reduce risk. Conducting “wargames,” rehearsals, and running digitally-aided simulations should all be a part of the librarian’s toolkit.

Key Takeaway’s for Libraries

Commit to “Wargaming” Major Decisions
In the absence of data or feedback loops to inform decisions (reference Stitch Fix), thorough “wargaming” frameworks are critical to reducing risk. By making a habit of using a collaborative, structured approach towards testing options, libraries can avoid instances where they rely on the intuition of a few individuals to shape decisions.

Rehearse, Rehearse, Rehearse
Every aspect of a decision, and of an organization, can be rehearsed. For librarians who are given major advocacy challenges early in their careers, conducting rehearsals is a good way to prepare for these challenges.

Benefits:
Leveraging “wargames,” conducting rehearsals, and using simulations where applicable are great ways to reduce risk associated with major decisions.

Resources Required to Start:

1. Dedicated framework and process for testing decisions.
2. Representatives from all aspects of decisions a library would want to test (e.g. patrons, govt. officials, board members, etc.)
#1: Libraries have data on the impact of services

Recommendations for rehearsing and testing decisions like the SOMTC

## Strategic Outcomes

**#1 Reduce risk**
associated with major decisions for which there is not much existing data.

## Tactical Actions

**#1 Form a decision team**
of patrons, board members, govt officials, and local businesses to help “wargame” decisions.

**#2 Host routine meetups**
with the decision team and **leverage a framework** for testing and challenging options.

**#3 Record outcomes and share key takeaways**
with adjacent libraries and other organizations for whom the takeaways apply.

## Habits

**#1 Rehearse** speaking points for major meetings and likely challenges associated with implementing any new plans.
#2: Libraries are data centers

Libraries are the go-to center for quality datasets, which are treated by public library leaders with the same care and attention as books and e-books. Because of their diligence and reliability managing datasets, libraries have a strong brand image as our society’s forward-thinking, tech-savvy information providers.

MOMENTUM

*Once was* focused on circulated material
*Now is* focused on data of all types
#2: Libraries are data centers

Vision

In the future, libraries maintain and curate multiple types of data in addition to circulated material. In particular, they have a reputation as the go-to center for quality datasets. Libraries hold a top of mind awareness among library patrons, entrepreneurs, data professionals, and government officials, all of whom know they can count on their local library to provide them the data they need to measure impact and to drive operations.

Because libraries have established themselves as trustworthy data custodians, the need for “open data” projects is long gone. Everyone knows if you need data, visit the library. Not only do libraries use multiple data types to measure their impact and to plan their operations, they can help other agencies to do the same. As a result, they support a wide variety of information needs.

Illustrative example of a future library website offering a data mart with city, county, state, and federal data
#2: Libraries are data centers

Vision

Libraries take ownership of datasets, particularly government data, replacing the function of today’s “open data” projects. In doing so, libraries, anonymize, standardize, and safeguard this valuable data. Each library offers a baseline standard of data features, to include, but not limited to:

- **Centers of Excellence**
  Centers of Excellence can take many forms, but for local libraries they could be online forums wherein people can share best practices, use cases, tools, frameworks, and code they used to leverage data.

- **Data-Marts**
  Data-marts are centers of standardized, quality data that require little, if any, work to be studied and used. Libraries could create data-marts from the multiple municipal datasets that are freely available to most people, but are not standardized (labor statistics, twitter, SEC, etc.)

- **Data Lakes**
  Data lakes are repositories of non-standardized data. For public libraries, this could be both a resource center with links to other data repositories and an actual server wherein people can post unstructured data for future inclusion in the data-mart.

- **Developer Notebooks**
  By hosting a developer notebook (e.g. Jupyter), public libraries would make working with the data hosted in their data-marts fast and convenient. This would drive traffic to their spaces and websites as other government organizations, and individuals, would leverage these notebooks to explore and work with the data.
Imagine

Brandon works full-time Monday through Friday at a UPS loading center in Greenville, SC, but lives about 45 minutes away in the small town of Honea Path. He’s been considering picking up extra work on the weekends as an Uber driver in Greenville. One Saturday afternoon while visiting his local library, he decides to run some of his questions past his librarian...

I’m considering driving for Uber on the weekends…

Have you checked out our Uber data? It could help inform your decision...

Sounds great, but I’m not so “tech-savvy.” I’d need a lot of help.

That’s what we’re here for! Let’s explore the data together.

The data suggests the best days to drive are actually Friday and Saturday.

Wow that’s cool! I’ll see if I can adjust my schedule at work to Sunday – Thursday.

Six months later...

I’m so glad the library was able to help me with all that data. This extra gig has helped me earn an extra $3,500 bucks so far. I’ll be sure to upload my experience on their website.
#2: Libraries are data centers

Justification

**Disruptive Forces**

**Big Meaning, Not Big Data**
The concept of the library as a data center is perfectly aligned with the trend of “big meaning, not big data.” It is easy to see how the library could position itself at the center of the trend.

**Privacy**
The high degree of public trust conferred to public libraries makes them natural custodians of public municipal data. As privacy continues to gain consumer attention, libraries, who already have great respect for patron privacy, will be perfectly suited to manage important datasets.

**Public Library Trends**

**Advocacy Challenges**
Establishing a brand as the community and government “go-to” center for data and information could greatly reduce value proposition challenges that librarians face when advocating for resources.

**Measures that Matter**
Library data centers could significantly contribute to the Measures that Matter initiative. Moreover, by taking ownership of datasets, public libraries would be in a position to help other government agencies measure the impacts that matter to them, thereby furthering their brand image and value proposition in the eyes of the local government.

**Library Patron Personas**

**The Driven Worker**
Some of the pain points identified through the “Driven Worker” persona include frustrations around databases and resources. The curation of datasets in addition to reference material could assuage these frustrations.

**The Lifetime Learner**
Well curated, high quality datasets are infinitely attractive to the intellectually curious lifetime learners. Similar to how city “open data” projects operate today (relying on curious data professionals), the library would receive a lot of attention and resources from data professionals by taking ownership of datasets.
#2: Libraries are data centers

Benefits

Taking ownership of datasets would bolster public library’s brand and value position to government officials who control resources

“Libraries don’t have a strong brand in the eyes of lawmakers. We positively impact communities. We improve quality of life. But we don’t have a way to measure any of this impact.”

- Library Director

Libraries are bridges for people hoping to cross the digital divide; providing free access to quality data supports this role

“Libraries are still fighting an antiquated perception of what we do... (a common refrain we hear is)... if all you do is check out books, why do you need more staff and more space?”

- Library Executive Director

Hosting Notebooks Increases Digital Access
Live data notebooks significantly increases access by lowering the hardware requirements to learning and practicing coding. All one needs to practice coding on a live notebook is internet access. Because many families trapped in the digital divide do not have computers at home, these notebooks essentially open up a whole new field to persons who only have tablets and/or chrome books.

Small Businesses Benefit from Info Access
Information asymmetry is one of many major obstacles to scaling a small or new business. A network of connected libraries, all of whom host data-marts and notebooks, would allow emerging business to leverage data in the same way large ones do.
-driven Data are data centers

Outside industry examples

Driven Data is a website that hosts competitions at the intersection of data science and social impact. The site is an open platform wherein organizations can upload data sets and identify the questions they would like to answer from the data. Financial rewards are available for the individual or team who best answers the questions, thereby creating an incentive for data enthusiasts to work with the data to answer the identified questions. Libraries could use Data Driven, or build a similar model, to jumpstart the Measures that Matter initiative.

Jupyter

Project Jupyter is a nonprofit organization dedicated to creating tools to facilitate interactive computing across numerous programming languages. Jupyter has created interactive “notebooks” which allow people to develop and launch code on a website, as opposed to their own computers. These notebooks make working with data much easier, because the individuals working with the data can focus on the task at hand, as opposed to having to constantly update their computers with the various libraries and packages necessary to work with specific data sets.
Driven Data crowdsources help in using data to quantify social impact

What is Driven Data?
A website that hosts competitions for projects at the intersection of data science and social impact. These projects cover topics such as conservation and health.

Driven Data’s Key Features

Monetary Rewards
Through partnerships with organizations, Driven Data can offer monetary rewards as large as $50,000.

Learning Cutting Edge Data Science Concepts
Driven Data offers a blog on their site to learn about new and exciting concepts in data science. An example of this is a blog post that provides step by step instructions on how one of their challenges was solved.

Creating Purpose for Data
Challenges can be framed to make use of the data you already collect, turning once potentially useless data into a source for competition. Previous challenges’ data sets are available to download, allowing anyone to utilize it for their own personal needs.

Challenge:
Use yelp data to flag restaurant health risks...
As in most cities, health inspectors are generally random, which can increase time spent on spot checks at clean restaurants that have been following the rules closely – and missed opportunities to improve health and hygiene at places with more pressing food safety issues.

Reward: $5,000
Participants: 607
Number of Entries: 772

Solutions:
In partnership with Yelp and Harvard, and with support from the City of Boston, Driven Data structured a challenge to tie Yelp reviews and ratings with the results of Boston’s hygiene inspections.

As of 2017, the city of Boston has put the top algorithms from this project to use and - in practice - is finding 25% more health violations than before.

#2: Libraries are data centers
#2: Libraries are data centers

Libraries could replicate Driven Data’s example locally

**Strategy**

Provide forums wherein people can share best practices, use cases, and code they used solve problems on datasets.

Data collected by libraries can be explored through a challenge to turn it into a source of value. Once a challenge is complete, the solution and the process behind it can be shared on the library website – in turn teaching new data science concepts and exposing a new audience to the library’s offerings.

**Key Takeaway’s for Libraries**

Centers of excellence platforms like Driven Data can provide libraries with the ability to extend their offerings and bring new value to their communities at a minimal effort past the setup costs or funds they would use for incentives. These centers also create a place to foster learning and teamwork, all while generating value around the data collected by the library.

**Benefits:**

Libraries can host challenges with their data sets to tackle community issues or larger scale problems pertaining to libraries and/or society. Competition can foster a sense of teamwork and community as the challenges can be set up to reward the first library to solve a particular challenge. A center of excellence provides a platform to create value for both the people and the data being collected.

**Resources Required to Start:**

1. Reward/Incentive to generate activity around the challenge.
2. Clean and tidy data sets to explore and analyze.
3. Data enthusiasts to use the data to derive insights on the problems.
#2: Libraries are data centers

Recommendations for leveraging centers of excellence like Driven Data

<table>
<thead>
<tr>
<th>Strategic Outcomes</th>
<th>Tactical Actions</th>
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</tr>
</thead>
<tbody>
<tr>
<td>#1 The story of the impact of libraries is better quantified, communicated, and can be leveraged towards advocacy aims.</td>
<td>#1 Offer a financial reward and host data challenges on sites like Kaggle and Driven Data.</td>
<td>#1 Have a communication plan in place for every data challenge: what did I learn, who needs to know, and how can I tell them?</td>
</tr>
<tr>
<td>#2 Libraries improve proficiency in working with data and computer science.</td>
<td>#2 Contact local universities statistics and modeling classes. The data could be provided and the assignment used as a lesson or homework.</td>
<td>#2 Focus on repeatability. Measure success in data challenges not just on results, but on how well libraries are able to repeat the process.</td>
</tr>
<tr>
<td>#3 Use free access to space as a reward for the winner of a data-centered challenge. Offer the space to startups.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Habits

Tactical Actions

Strategic Outcomes
What is a Jupyter Notebook?

Jupyter notebooks are web applications that allow users to create, run, and share live code. These notebooks make collaborating and working with data much easier because they eliminate the requirement to install and maintain coding libraries and packages on individual computers. For persons not familiar with coding, the following analogy could help make the concept more understandable:

Consider asking a friend for help in painting an apartment, but the apartment is not at all ready to be painted. The paint needs to be picked out, materials purchased, and rooms need to be cleared of furniture and taped.

Now consider asking that same friend for help in painting an apartment, but letting them know everything is fully prepped. The only help needed is in the actual task of painting.

Working with data is much the same way. A lot of prep work has to be done to prepare to work with data. Hosting Jupyter notebooks solves for this, and allows people to focus on the task coding itself, not the prep work.

Challenge:

Collaborating on data science projects can often be difficult because of the numerous packages and libraries each individual must install on their computer for a team to collaborate. For instance, if an individual built a model on a given dataset using packages A, B, and C, but another individual only has packages A & B on their computer, they would not be able to run the model locally. The necessity to constantly align on system requirements to collaborate can slow down efforts to work with data.

Solutions:

By creating an open-source, web-based development environment, Jupyter allows users to better collaborate on development projects, specifically in working with data.
Libraries could host Jupyter notebooks to help others explore their data

**Strategy**

Once libraries have momentum with the Measures that Matter initiative, and a data-mart in place, they could host a Jupyter notebook.

**Key Takeaway’s for Libraries**

**Open-Sourced**

Jupyter’s license authorizes anyone to host, change, or distribute the software for any purpose. As a result, there would not be any significant legal inertia to overcome before hosting Jupyter notebooks.

**Web-Based**

Jupyter notebooks are web-based. As a result, the hardware requirements for using these notebooks are quite small. One could even use a Jupyter notebook from a smart phone or tablet if they so desired.

---

**Benefits:**

By hosting Jupyter notebooks, libraries would make collaboration on their data much easier. Additionally, they would make it easier for others to work with their data.

**Resources Required to Start:**

1. Data repository (e.g. data-mart) of data to be explored and leveraged.
2. Capable programmer to help setup the notebook.
#2: Libraries are data centers

## Recommendations for hosting Jupyter-style (developer) notebooks

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>#1 Set conditions for smooth collaboration when working with data.</td>
<td>#1 Host a Jupyter notebook in conjunction with PLS data and other data that libraries would like to leverage to measure impact.</td>
</tr>
<tr>
<td>#2 Libraries improve proficiency in working with data and computer science.</td>
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1. Host a Jupyter notebook in conjunction with PLS data and other data that libraries would like to leverage to measure impact.
The library connects its patrons to data and information not only from around the world, but also from the library's local community. From state documents to ancestral records and family trees, libraries can serve as conduits into a local culture's past and present for all to see. By preserving and connecting records, libraries can provide a sense of identity, continuity, and context in a world inundated with uncertainty and confusion.

**From** a focus on outside information  
**To** curating local, user-provided information
#3: Libraries are connected preservers of culture

Vision

Society continues to technologically progress and grow its volume of information at an exponential rate. As storage devices switch formats, operating systems evolve, and internet protocols change, the preservation of data on legacy systems from print records to floppy disks will present libraries with new opportunities. Libraries act as guardians for this data and ensure its continuity.

Additionally, libraries are able to connect, yet safeguard, patron’s information in new and exciting ways. Persons who once uploaded document to library servers for preservation now do so to learn more about the document itself.

The exponential growth of data and processing capacity requires format updating which can jeopardize the retrievability of information.
Imagine

Jackie is a recently retired pharmacist who lives just outside of San Antonio, TX. She’d like to get more involved helping others in her community by sharing items she’s collected over the years. Additionally, she has a lot of family documents and recordings, and would like to use them to learn more about her family and community...

The next week...

This is cool. I hope others can get some good use out of all this stuff.

And wow... I’m shocked by the library’s tools for matching my family’s genealogy documents to other such documents throughout the country.

Great! We have an app to help you post the material you’d like to loan, and a nationally connected platform for exploring heritage documents.

This is great! I’ll spread the word!

That’s what we are here for.
#3: Libraries are connected preservers of culture

## Justification

### Disruptive Forces

**Big Meaning, Not Big Data**
The cultural information and historical data collected and preserved by libraries will need to be organized and presented in a manner that makes them actionable and insightful for the current population.

**Quantified Action**
The preservation of ancestral and historical information is key to people’s understanding of current events. For example, a particular record may shed light on one’s predisposition to a particular genetic disease, or an old document may be able to settle a property dispute. Libraries can act as easily accessible conduits to this valuable information.

### Public Library Trends

**Serving Diverse Roles**
Local community members call upon public libraries to provide more services beyond traditional information access and connectivity. Libraries that learn to preserve the essence of their community will become more integral within and appreciated by the community.

**Doing More & More**
As the population leaps forward into a new era with unprecedented levels of change, people are expecting to have easy access to traditional materials. By preserving such materials digitally, libraries can offer more information to a wider audience at a reduced cost.

### Library Patron Personas

**The Conscious Consumer**
Some of the conscious consumer’s primary concerns are inclusion and community integration. These aims are poorly achieved without an understanding of why a particular community is organized in a particular fashion. Preservation of cultural material will provide context for the conscious consumer and allow for informed decision making.

**The Lifetime Learner**
Lifetime learners’ constant desire to explore new topics combined with their tech savviness makes the lifetime learner a prime advocate and consumer of preserved cultural information.
#3: Libraries are connected preservers of culture

Benefits

Preservation of cultural and historical information will serve a two-fold purpose. First, it will provide a window into the past that may have otherwise been lost. Second, it will proliferate access of information that provides the context of where a particular community finds itself today.

A Window for Posterity
One of the most important library efforts will be the transfer of older unique print materials into the digital space. Digital preservation will ensure the continuity of valuable knowledge in addition to providing more information online.

Avoiding a “Digital Dark Age”
One often ignored aspect about technological progress is the obsolescence of older technologies and, in the case of information technologies, what to do with the data on legacy systems. Experts fear entire generations may be forgotten due to a “digital dark age.” While larger bodies are best saved on federal and museum systems, libraries can ensure that smaller communities and local cultures are saved for posterity.

Local Goes Global
While the internet may have made humanity more connected, primary materials which can give a pursuer of knowledge a better understanding of society at its smallest levels are still lacking. Libraries that preserve and digitize local documentation enable people from around the world to access information relating to specific cultural groups and will help foster dialogue and understanding.
#3: Libraries are connected preservers of culture

Outside industry examples

**Palantir**

Palantir is a privately owned data analysis company. Their services are widely used by agencies in the U.S. intelligence communities and the Department of Defense. In the last five years, Palantir has also begun serving a number of private sector clients. Palantir hosts software that identifies patterns between multiple disparate, user-uploaded, documents and data sources. (e.g. scanned plane tickets, phone records, bank statements, etc.). These patterns are then made visual through “webs” or “network analysis charts” which highlight the relationship between documents and people.

**Pass it Down**

Pass it Down is an online platform that allows users to upload documents relevant to their heritage or community history (e.g. family stories, articles, etc.). Unlike Palantir, however, Pass it Down does not allow users to identify patterns among the uploaded documents and connect them to each other, creating an overall ‘story map’ for local communities. Accordingly, they are a great example to study for a good interface for uploading documents, but such an example would still have to be expanded to connect nationwide.
What is Palantir?
A data analysis company that connects user-uploaded documents and data sources to identify patterns and create network analysis.

Palantir’s Key Features

Ease of Use
Palantir accepts nearly any type of upload one can think of, making it a generally easy system to work with. Users can upload multiple document types (PDF, audio, JPEG, CSV, etc.) and explore how they connect.

Visualizations
Patterns and connections between document types are made clear through easy to understand visualizations, usually in the form of spiderweb charts.

Correctable
If observers identify discrepancies in the patterns and/or visualizations produced by Palantir, there are numerous features for adding more info or correcting patterns identified by the system that may have been false.

Challenge:
Internal investigations in the aftermath of the September 11th attacks revealed how siloed the U.S. government agencies and military departments were. As a result, the department of homeland security was created, and the U.S. government solicited requests for systems that allowed intelligence related documents to be connected between organizations.

Solutions:
Palantir quickly emerged as the U.S. governments go-to vendor for services connecting intelligence related documents. Because of Palantir, the U.S. government was finally able to quickly connect user-uploaded, evidence-based, documents between agencies like the Coast Guard, TSA, FBI, and the military branches.
#3: Libraries are connected preservers of culture

Libraries could serve as a Palantir for preservation of culture

Strategy
Libraries are already playing a critical role as the preservers of our local and national cultures. Much of the documents they safeguard, however, reside on local servers within county infrastructure. Similar to how Palantir connects user-uploaded documents between government agencies, libraries could take efforts to connect the user-uploaded heritage documents of their patrons with those of patrons throughout the country.

Key Takeaway’s for Libraries
A Possibility Unique to Libraries
Not many organizations in the U.S. are in a good position to drive new insight on our history by connecting user uploaded documents. Should libraries choose to do so, they could create significant value for library patrons and boost their brand image as innovative curators of information.

Palantir is a Mature Platform
While Palantir is a great example, libraries would not have to create a structure anywhere near as sophisticated as Palantir to begin connecting patron-uploaded documents. Libraries could develop a much more simple platform.

Benefits:
Should libraries take efforts to connect patron-uploaded documents, the benefits would be shared by both patrons and libraries. Patrons would enjoy learning about their own heritage by seeing how it is connected. Libraries would also benefit by increased traffic and a brand image boost for having such innovative, personalized features.

Resources Required to Start:

1. System or structures in place whereby library patrons can upload heritage-related documents (interviews, family trees, etc.)
2. Tools for standardizing the document formats for patron-uploaded documents (e.g. PDF to TXT)
#3: Libraries are connected preservers of culture

Recommendations for connecting user-uploaded documents

<table>
<thead>
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<td><strong>#2</strong> Invite more patrons to become involved with libraries through sharing their stories and exploring their history.</td>
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<td><strong>#1</strong> Consider subscribing to Palantir services, or a firm who can perform similar functions.</td>
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<td><strong>#1</strong> Constantly ask how can patrons upload heritage documents, and how can patron-uploaded documents be connected to others.</td>
</tr>
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</table>
Pass it Down allows user to “crowdsource their history”

**What is Pass it Down?**
Digital platform that allows user to upload multi-media heritage documents (e.g. audio recordings, videos, etc.)

**Pass it Down’s Key Features**

**Multi-Media Uploads**
The Pass it Down platform allows users to upload multiple document types to tell their stories (video, audio, etc.)

**Customizable**
The specific look, flow, and features of the platform can be changed to suit the preferences of each institution.

**Mobile Friendly**
There are low hardware requirements for working on the Pass it Down platform, meaning one can upload and browse documents from any mobile device.

**Visualizations**
The Pass it Down platform allows users to create basic mapping visualizations by pinning the location of each memory they upload and by color-coding it.

---

**Challenge:**
The Chattanooga Public Library had a mission to preserve and promote Chattanooga’s history and give the entire community the ability to share their own memories about the city.

**Solutions:**
In partnership with Pass it Down, the Chattanooga Public Library created the Chattanooga Memory Project. This project allows the library to accomplish their goal of preserving and promoting their cities’ history by allowing them to create stories among themes (art, business, etc.) and then allowing Chattanooga citizens to contribute content related to that story. The library takes the lead in uploading content for those who aren’t tech-savvy, and even has a studio wherein patrons can record their own stories.
#3: Libraries are connected preservers of culture

Libraries can help preserve local history by enabling crowdsourcing

**Strategy**
Create, or subscribe to, a history crowdsourcing platform to enable library patrons to contribute stories about their local communities. Connect their stories with others in the platform and with other library platforms throughout the country.

**Key Takeaway’s for Libraries**

**Buy vs. Build**
While building a crowdsourcing platform is certainly do-able, licensing a service from a third party may be the fastest way to accomplish the goal. Libraries would likely have significant negotiation power if they decided to combine resources to share the cost for such a license.

**Individual Platforms Still Need to be Connected**
The Pass it Down platform is a good tool for enabling users to upload their stories, but it does not provide for connecting those stories to other such platforms. If libraries subscribed to a platform like Pass it Down, they would still have to ensure the individual platforms are connected across libraries, similar to the service Palantir provides.

**Benefits:**
Enabling crowdsourcing of community stories would bolster the preservation of our history, engage community members, and boost the brand image of libraries as tech-savvy curators of information.

**Resources Required to Start:**

1. Time to build a crowdsourcing platform or money to subscribe to one.
2. Communication plan to spread the message to community members.
3. Individual who can supervise and curate the platform.
#3: Libraries are connected preservers of culture

Recommendations for libraries in facilitating user-uploaded documents

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Habits

#1 Constantly ask how can patrons upload heritage documents, and how can patron-uploaded documents be connected to others.
#4: Library patrons are advocates & influencers

Libraries are proactively engaged and connected with the community while encouraging individual patrons to promote the material, services, and value that a library provides. Local community members reliably and positively influence funding referendums, obstinate governmental officials, and board members.

MOMENTUM

Once was focused on big government support
Now is focused on grassroots advocacy
#4: Library patrons are advocates & influencers

**Vision**

As more funds come from local sources, librarians will further enable local community patrons to become advocates on behalf of the library. Using the Net Promoter System as a framework, libraries will focus their efforts on converting “passives” to “promoters” and giving voices to promoters loyal advocates at local community and government events. Librarians will create opportunities for patrons to become emotionally connected through hero moments. These emotionally connected individuals will be more likely to support the library and advocate on behalf of the library to government.

<table>
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<tr>
<th>Against</th>
<th>Dislike</th>
<th>Indifferent</th>
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<td>Passive</td>
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Librarians will convert the less active community members who hold favourable views of the library into vocal supports.
Imagine

Lindsey is very engaged on social media and has gained a large following around her amazing pictures of nature with captions about protecting the environment. With this large following at her finger tips, Lindsey starts to brainstorm ways in which she can create an impact...

We have a leaderboard for social media influencers that support library initiatives. We track who brings in the most attendance to our events through social media awareness.

Do you have any initiatives on the environment?

Yes! In fact, we’ve just launched an initiative collecting old clothes to be recycled.

Hi, I am visiting the library today because I wanted to find out if you are doing any initiatives to help the environment.

Have you checked out our influencer leaderboard?

No, what is that?

Sign me up! I will start sharing your initiative with my followers whenever I post.

Great. I will add you username to our influencer leaderboard. First place gets an yearly subscription to Nature Magazine.
#4: Library patrons are advocates & influencers

Justification

**The Trust Currency**
Constant and varied support from users has become one of the most important value metrics in the 21st century. Increasing the number of vocal advocates and supporters for public libraries will bolster the library’s position within the community.

**Expectations Arms Race**
The increase in consumer expectations brought about by giants such as Amazon have made it difficult for any industry or service provider to keep pace. Libraries will need to differentiate themselves through emotional connection to convert community members into advocates.

**Advocacy Challenges**
An increasing number of voters believe that library funding should be the first thing cut in a crisis and a decreasing number of voters see library funding as a top priority. Creating vocal community advocates can help ameliorate and reverse these trends.

**Awareness Challenge**
Libraries will not be able to create the deep emotional connection necessary to turn patrons into advocates if patrons are unaware of the value that libraries provide. Existing super supporters and vocal advocates will prove to be a valuable resource when attempting to convince the broader community of the libraries value.

**The Conscious Consumer**
Innately concerned with the community and predisposed to value the services a library provides, the conscious consumer represents the best opportunity to empower a patron into becoming an advocate. The conscientious experience journey map outlines a potential method for this change to occur.

**The Social First**
Social firsts will call attention to the library as a venue and help display the value of the library. Their desire for social activity will boost the opportunities for libraries and librarians to engage their communities.
Empowering library patrons to become library advocates will help libraries secure the resources and public support necessary to further support their community and help diverse groups with their disparate needs. A strong advocacy base, therefore, would:

**Help Librarians when Requesting Funds**
Even though local sources constitute 86% of public library funds, 59% of voters believe that most library funds come from non-local sources. Libraries that create a strong patron advocacy contingent will be able to enter into stronger negotiations with local gatekeepers through grassroots activism and voter drives.

**Improve ROI on Services**
Libraries that foster a relationship with their vocal advocacy base gain a two-fold benefit. First, the library will gain strong sources of advertising which can inform the community about new or existing services. Second, libraries will have a set of intermediaries that can act as a vox pop when deciding on new services and materials to provide.

**Reduce the Costs of Marketing Initiatives**
Currently, only 40% of libraries have a communication strategy and nearly half of the 56% of libraries with a specific marketing budget have an allotment of $5000 or less. Libraries that foster and enable a strong advocacy base will gain a strong marketing engine that does not require excess funds to operate.
#4: Library patrons are advocates & influencers

Outside industry examples

**Electronic Arts**
Electronic Arts (EA) is a prominent American video game company. They created many iconic games like FIFA and Madden NFL and established several successful franchises like The Sims and Medal of Honor. In 2013, Andrew Wilson was appointed as CEO. One of his top priorities was to create a culture that would transcend continents, and to empower EA employees as brand advocates. Towards that end, they have been very successful, and EAs stock improved ten fold from 2013 to 2018.

**Patagonia**
Patagonia is an American outdoor apparel company that considers itself an “activist company.” Because of their environmental advocacy efforts, the company has developed a strong base of loyal customers who share similar beliefs about environmental conservation and sustainability. These customers have served as strong brand advocates on behalf of Patagonia, and frequently rally to support causes championed by Patagonia. As a result, Patagonia has created a lot of positive momentum around environmental issues, and their business has soared over the last thirty years.
What is Electronic Arts?
A successful video game company that has done a great job empowering employees to act as brand advocates.

EA’s Employee Advocacy Program
Key Features

Supporting Platforms
EA developed a platform for employees to post comments, share info, and see newsfeeds about the company.

Gamification
Once the supporting platform was in place, EA incentivized employees to contribute content and share info about the company on social media. They created leaderboards and had reward systems in place for employees who had the most followers or created the most successful content.

Support to the Employees
Employees also had access to social media training to help them in creating and sharing content and developing a social media presence.

Challenge:
When Andrew Wilson took over CEO of EA in 2013, the company had over 8,000 employees spread across 50 locations, working in six different languages. As a result, creating a transcontinental corporate culture and empowering employees to act as brand ambassadors was one of Andrew Wilson’s top priorities.

Solutions:
EA launched an internal platform so employees could upload content, share ideas, and see newsfeeds about the company. Once the platform was in place, they leveraged gamification techniques (e.g. leaderboards) to incentivize employees to share stories about the company on social media. As a result, the 1,000+ members who use the platform have reached an audience of over 1M people on social media, driving an average of 6,600 engagements per month.
Libraries could imitate EA’s example of incentivizing employees

**Strategy**
Create a platform for collaboration between library employees and provide social media training for those who are interested. Create leaderboards and incentives to those library employees who develop the strongest followings.

**Key Takeaway’s for Libraries**

**Empowering Employees to Act as Brand Advocates Boosts the Overall Brand of Libraries**
Consumers react more positively to hearing messages from a company’s employees instead of the company itself. In the case of libraries, hearing messages from library employees would be even more meaningful, because library employees are so widely respected and trusted.

**Empowering Employees to Act as Brand Advocates Boosts The Brand of Individual Employees**
Employees with large followings and with strong credibility have more leverage in their own careers. Having a strong personal brand serves the employees well.

**Benefits:**
Incentivizing employees to serve as brand advocates is a low cost and fairly easy way to boost the overall brand of libraries. Additionally, for the library employees who engage in any such programs, they would benefit individually from having a large following and a strong online presence as well.

**Resources Required to Start:**

1. **Buy-in from employees who want to support a collective brand advocacy initiative or challenge.**
2. **A platform for collaborating and tracking the efforts of individual library employees.**
3. **Rewards for the employees who are creating the most content or building the largest online presence.**
#4: Library patrons are advocates & influencers

Recommendations for libraries in building advocacy from employees

**Strategic Outcomes**

- **#1 Library services are better communicated**, and can be leveraged towards advocacy aims.
- **#2 Libraries have increased reach** throughout their communities.
- **#3 Library employees have stronger online profiles** (e.g. LinkedIn, Instagram, etc.), helping them in their individual careers.

**Tactical Actions**

- **#1 Create, or subscribe to, a platform** for library employees to share content, and receive scores on social media reach and influence (e.g. Social Mention).
- **#2 Host leaderboards and provide public praise and rewards** to the employees who have the most reach and influence on behalf of their library.

**Habits**

- **#1 Persistence in communication.** Ask: have I contacted more people and shared a positive story today?
Patagonia empowers customers to support their causes

Who is Patagonia?
An American retail company heavily involved in environmental activism.

Patagonia’s Key Features

Aligning a Brand with a Cause
For decades, Patagonia has been consistent in their marketing efforts to ensure customers associate their brand with environmental advocacy.

Creating a Following
Americans generally want to support organizations they believe to be ethical and respectable (reference the “Conscious Capitalism” trend in the disruptive forces section). By aligning with a cause, Patagonia has created a following of loyal customers.

Fostering Engagement through Digital Advocacy
Patagonia empowers grassroots advocacy among its customers and allows them to participate in digital campaigns, often generating thousands of emails to support individual causes.

Challenge:
In December of 2017, President Trump announced he would reduce the 1.35M acre Bears Ears National Monument by 85%.

Solutions:
Patagonia publicly challenged President Trump’s announcement, creating a campaign called “The President Stole Your Land.” The company is also taking the issue to court. Through the creation of a campaign, they rallied the support of numerous other businesses and individual customers. The campaign has subsequently received over 2.5M public posts.
Strategy
Create options for library patrons to support libraries in the causes they champion.

Key Takeaways for Libraries

Aligning with Causes Selectively
Unlike Patagonia, libraries rely on funding from local governments. Though libraries can still advocate on select issues, they have to be more careful on what issues they champion, because they are still a government agency.

Allow Patrons to Advocate on Sensitive Issues
For sensitive issues, libraries can simply create communication campaigns and allow their patrons to voice concerns. This allows patrons to strengthen their voice but does not put the library in a politically sensitive situation.

Benefits:
Empowering patrons to act as advocates would bolster community engagement and reinforce libraries positions on key issues.

Resources Required to Start:

1. Alignment on the key issues libraries intend to highlight for advocacy.
2. Communication platform for digital advocacy campaigns.
#4: Library patrons are advocates & influencers

Recommendations for libraries in building advocacy from patrons

**Strategic Outcomes**

#1 Libraries have more influence with policy makers on issues of concern to libraries.

**Tactical Actions**

#1 Create, or partner with, a digital advocacy platform (e.g. Muster).
#2 Host meetups on key issues at local libraries.
#5: Libraries are local & national digital platforms

Public libraries are trusted, respected platforms whereby community members can freely exchange goods and services, upload personal stories, and collaborate. In addition to the local platforms established in all libraries, public libraries are connected through a national digital platform.

**MOMENTUM**

*Once was* focused down and in, loosely connected

*Now is* focused up and out, externally connected
#5: Libraries are local & national digital platforms

**Vision**

Local libraries leverage platforms to curate goods and services considered to be additions to the core services provided by libraries. For instance, such platforms are used to create a “Library of Things” model whereby library patrons can donate, exchange, borrow, or receive material and services from other library patrons. This experience is gamified, providing direct feedback to patrons for the goodwill they are providing their communities.

Additionally, local libraries have user-generated content portals where patrons contribute to the information being managed by the library. As a result, many patrons have started digitizing and uploading documents related to their family's genealogy information. Because libraries are nationally connected, they can identify patterns from these genealogy documents, often linking them to other people.

Example of a “Library of Things” feature currently in use in the United Kingdom. This platform allows library patrons to contribute, not just borrow.
#5: Libraries are local & national digital platforms

Vision

All libraries are connected through a national digital platform that enables sharing of resources and exchange of raw data from libraries throughout the country. This platform eases the burden of measuring the societal impact of libraries initiatives. Additionally, the network allows libraries to build significant negotiation power when acquiring licenses and materials.

Not only does the national platform serve the sharing of information, it serves as a venture-capital style portal wherein library leaders can build business cases for initiatives, grow support networks, and ultimately receive funding through state and federal grants. Such a portal therefore serves as a center of excellence for the incubation and testing of new ideas. Accordingly, libraries are able to observe the success or failure of initiatives throughout the country before deciding to take them on for themselves.

The Brooklyn public library is one such example of how a platform can be leveraged as an incubator
Imagine

John recently cut his work week to 3 days a week. With the extra time, he is looking to get more involved in the community and clean up his home. When cleaning out his garage he finds a toolkit he used once but is hesitant to throw it out because it cost so much. He goes online to see what he could do with the kit and comes across the local library website.

I've come across your 'Library of Things' initiative online and was hoping to rent out my toolkit?

Librarian opens the Library of Things portal

After you create a login for the portal, you will be brought to this screen with a list of all the items. Press the + button to add your toolkit and fill out the form.

That's so simple and easy! Thank you, I will go home and create a login and add my item. Thank you so much!

Of course! Happy to help!
#5: Libraries are local & national digital platforms

## Justification

### Disruptive Forces

**Rising Inequality**

As the American income divide widens, more persons from low income families will seek ways to achieve cost savings. Should the library decide to host an item-sharing platform, they would likely help a growing number of families to cut costs.

### Public Library Trends

**Doing More & More**

Libraries are increasingly being asked to add new services, but the funding they receive is not increasing at the same rate. Platforms are a good way to connect users to resources without having to incur large up-front costs to do so.

### Library Patron Personas

**Platforms Contribute to “Hero” Moments**

The user journeys indicate libraries exceed patron expectations when they are able to demonstrate their library is connected to the resources of other libraries. Patrons find it thoughtful, honest, and helpful.

**Quantified Action**

People crave information about themselves, their families, and their past. But they want to be able to do more than just collect documents and info. They want to leverage their stories and bolster them by making connections to new ones.

**Serving Diverse Roles**

In addition to the vast amount of services they already provide, many libraries are stepping up as cultural preservation centers for their communities. Having a nationally connected platform strengthens this role by allowing patrons to connect their heritage documents to those throughout the country.

**Social First & Lifetime Learner**

Allowing users to create user-generated feedback, and to link that material to a broader platform, is an attractive proposition to both the Social First and Lifetime Learner persona types.
#5: Libraries are local & national digital platforms

Benefits

Connecting individual libraries across local and national platforms would allow libraries to scale more easily, foster innovation, and connect patrons to a broader network of information.

Enables Cost Savings
Connecting libraries through state and national platform would allow them to scale more efficiently. In particular, it would encourage cost savings by allowing libraries to share resources including material, databases, and key personnel. It would also strengthen the negotiation power of public libraries when seeking licensing and leasing agreements.

Fosters Entrepreneurialism
Broadly connected platforms set the stage for the generation and spread of ideas. Furthermore, these platforms would allow libraries to share and test ideas before they are implemented throughout multiple individual libraries.

Satisfies Patron Needs
A national digital platform would enable patrons to create and share content and discover new material.
The “Library of Things” is a concept of libraries creating a process and infrastructure to allow library patrons to share goods between themselves (e.g. tools, projectors, folding chairs, etc.) There are already several examples of libraries hosting a “Library of Things” service. In this report, we are focused on a group in London who has created a scalable platform for communities who wish to share items.

gofundme is a popular crowdfunding platform that allows people to raise money for a wide variety of purposes. The platform is straightforward. Users create campaigns for the issues they would like to raise money for. In doing so, they cite their financial goal, then upload a video or write an explanation of what they will do with the money. Once they start receiving money they follow up with thank you notes and feedback about the impact of the donations received.
Library of Things (LoT) allows patrons to contribute goods and services.

What is a “Library of Things ?”
A platform, hosted by a library, wherein individuals can post items they would like to share and, in return, borrow items from other patrons (e.g. tools, folding chairs, popcorn makers, etc.).

LoT’s Key Features

Connects Community Members
Sharing items is a fun way for persons to connect with their community, and when the exchange is facilitated by the local library, it allows persons to feel more safe in the transaction.

Saves Patrons Money
A major incentive for people to use the Library of Things platform is that it saves them money, particularly for one time use items (e.g. folding tables and chairs). Many of the libraries patrons are price conscious (see the “Conscious Consumer” persona in the trends section), meaning there would likely be many early adopters of the platform from current library patrons.

Challenge:
Many people have a buildup of “things” around their houses that they don’t use frequently, but don’t necessarily want to sell. (Preferring either to donate or rent them). At the same time, several people feel they have no option but to buy items they only intend to use on a handful of occasions.

Solutions:
A Library of Things platform builds on sharing economy trends to allow individuals to save money and get extra value from sharing household items they were not using.
Library of Things features would boost patron engagement

Strategy
Set up a structure and, if able, a platform to allow library patrons to donate and borrow items between themselves. Integrate these items to the existing structures for managing circulation material.

Key Takeaway’s for Libraries

A LoT Feature Would Require using Some Space
Particularly in urban areas, individuals would be hesitant to pick up items featured on a Library of Things platform from someone else’s home. If a library were to host such a platform, they would therefore need to dedicate space wherein individuals can exchange items.

A LoT Feature Would Require Librarian Oversight
Sharing platforms place the majority of the responsibility on the individuals using them, but they still require oversight to ensure their safe and proper use. Librarians, therefore, would have to invest time in managing a Library of Things platform, even in instances wherein the platform is mature.

Benefits:
Hosting a Library of Things feature at local libraries would encourage patron participation and engagement. It would also allow libraries to meet the needs of their patrons in new and unique ways.

Resources Required to Start:
1. A sharing platform or plan to facilitate the sharing of items between library patrons.
2. A communication plan to announce the new platform or sharing initiative.
3. Space to facilitate exchanges of items between library patrons.
#5: Libraries are local & national digital platforms

Recommendations for libraries in hosting patron-sharing platforms

<table>
<thead>
<tr>
<th>Strategic Outcomes</th>
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<tbody>
<tr>
<td>#1 Libraries serve their patrons in new ways without having to add significantly more resources.</td>
</tr>
<tr>
<td>#2 Foster engagement with the local communities and allow patrons to participate in library activities.</td>
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<tr>
<th>Tactical Actions</th>
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<tr>
<td>#1 Establish dates wherein library patrons can bring items to the library to donate and take home items being donated.</td>
</tr>
<tr>
<td>#2 Create, or subscribe to, a platform wherein library patrons can donate and borrow items at any time.</td>
</tr>
<tr>
<td>#3 Use gamification features to recognize and reward the most active and reliable contributors.</td>
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</table>
# What is GoFundMe?

A highly successful crowdfunding platform that has raised over 5 billion since its debut in 2010.

**GoFundMe’s Key Features**

**Simplicity**
Whether one is looking to donate money or receive funds, GoFundMe’s platform is quite easy to use. The site also makes it easy to study the data to determine which types of campaigns receive the most money, and why.

**Encourages Sharing Info about Challenges**
Studying GoFundMe campaigns also sheds light on the challenges faced by many individuals and communities. From medical issues to political controversies, people throughout the country are trying to raise money for issues of importance to them.

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**Challenge:**
Jamie Jenkins is a foster mom for children with disabilities. She and her partner have been able to provide their children with everything they need. But when Jamie learned of another adoptive mom, Cindy Padgett, struggling to provide for her child, she decided to launch a GoFundMe campaign to help her out.

**Solutions:**
Jamie’s GoFundMe campaign helped raise almost $36,000 dollars to help Cindy Padgett meet the needs of her adopted children. The money supported the Padgett family in purchasing the unique equipment necessary to support their children’s needs. (e.g. backup generators to run life support systems when the electricity in their house goes out).
Strategy
Build an internal funding platform similar to GoFundMe to allow library employees and individual libraries to create campaigns to advocate for resources.

Key Takeaway’s for Libraries

Fosters an Entrepreneurial Culture
Funding platforms, hackathons, and other such employee engagement options allow employees to provide creative solutions to challenges faced at work. They also help provide senior leaders with direct access to bottom up feedback about the issues of concern to employees.

Improves Collaboration
In addition to providing information to senior leaders, internal funding platforms serve as a center of excellence whereby employees can see what challenges their colleagues are facing and how they have solved them or how they intend to solve them if they receive the requested resources.

Benefits:
An internal funding platform would foster an entrepreneurial spirit within libraries and would also help develop a common operating picture behind challenges libraries are facing.

Resources Required to Start:

1. Funds to award to internal campaigns.
2. An internal campaign funding platform.
3. Communication plan to encourage employees to participate and to share results with the broader library ecosystem.
Recommendations for leveraging an internal funding platform

**Strategic Outcomes**

- **#1 Resources are applied more efficiently** and to the teams who show the greatest promise of success.
- **#2 Boosting the entrepreneurial culture** within individual libraries.

**Tactical Actions**

- **#1 Create an internal funding platform similar to gofundme.**
- **#2 Develop leaderboards and communication plans** to highlight the success stories of funded campaigns.
- **#3 Ensure local platforms are connected through the state and national level for full transparency.**

**Habits**

- **#1 Have a communication plan** in place for every funded campaign. What did the individual/team do? How did they do it? What were the results?
#6: Libraries are centers for lifelong learning

Libraries partner with education platforms to continue to offer opportunities for learning to all age-groups with nationwide programs. Pre-K programs continue to focus on closing the achievement gap and provide a safe and stimulating environment for even the youngest of patrons. School-aged patrons are assisted with programs that support school curricula as well as opening doors to new horizons not necessarily available to all school students. STEAM programs are continually developed and libraries collaborate nation-wide to support standards and share ideas about these programs. For continuing education, libraries continue to prepare patrons for the current workplace, offer courses of interest to the local community, and develop own certification system.

MOMENTUM

Once was an inconsistent landscape of classes
Now is consistently aligned with local educational policy and in-the-now workplace demands
#6: Libraries are centers for lifelong learning

**Vision**

Educational courses are developed that incorporate online learning platforms, talks (hosted nationwide as webinars) by specialists, and locally hosted and remotely-supported workshops and activities. Libraries verify individual’s participation and have additional support materials available. Programs for adults are focused on preparing them various workplace requirements. The library-curated curricula will result in a recognized and library-accredited certificate of completion or readiness to attain a specific certificate, license, or to take a test.

Sample syllabus for library-accredited continuing education course
Imagine

Sara is looking to land a higher-paying job by learning basic programming skills because she notices many job openings require them. She is able to complete a relevant library course on her own timeline and upon completion, she receives a library-accredited certificate of completion which she includes on her resume.

It seems like so many job openings require some computer programming ability and I have none.

Let’s have a look together at the various courses available to you.

It looks like there are several online options to choose from! We have the online resources access you’ll need, a list of recommended courses, and an online tutor.

This course has everything I am looking for. I’m eager to list this on my resume!

Later that week...

Great! I have already covered a lot of material and found a few other courses that I am interested in pursuing. Thank you!
Rising Inequality
As income gaps broaden so too will the achievement gap, further polarizing an already divided society. Libraries will remain one of the few resources and venues available to all. With its own accreditation system, libraries work to close education and opportunity gaps.

The Gig Economy
With technology becoming the focal point for learning opportunities, libraries can facilitate a range of options through its shared network. As multiple career-changes become more prevalent, the type of patron seeking education opportunities will broaden as individuals seek to brush up on a certain set of current skills.

Role as Economic Engines
With ever-changing demand for workplace skills, libraries will need to maintain a current and relevant material to best serve their patrons. Investment in educational partners will allow the curricula to change with the demands of the market.

Serving Diverse Roles
Just as access to information was the empowerment of generations past, easy ability to gain new skills and proficiencies is the empowerment of the future. Libraries will continue to empower patrons and provide new ways to expand horizons.

The Lifelong Learner
The lifelong learner will frequently take advantage of the learning opportunities offered at the library; they will assist in creating the environment that learning can be pursued for pleasure and out of pure curiosity.

The Conscious Consumer
Conscious consumers have a high demand for the shared resources provided by public libraries. Accordingly, they would likely benefit from free, certificate producing, courses facilitated through local libraries.
#6: Libraries are centers for lifelong learning

Benefits

Developing learning programs by forming strategic partnerships and pooling resources will pave the way for libraries to offer the most complete, relevant material to patrons. This can become an effective tool at closing the achievement gap and leveling the playing field.

Closing the Achievement Gap
By facilitating free learning opportunities, libraries will continue to close the achievement gap. Early education and STEM initiatives, supported by online platforms, will allow libraries to offer contemporary and relevant material that will help patrons excel in school and expose them to subjects and options that are not provided in their formal education.

A Beacon for Equality
Many online courses, test preparation classes, and certificate options are prohibitively expensive for a sector of the community, although they usually much less than formal continuing education options. Providing bandwidth and raising awareness about online platforms, encouraging test preparation, and aiding patrons to achieve certificates that will make them highly competitive in the job market are just some of the ways that libraries will continue to level the playing field and afford patrons equal opportunities.

Providing Stimulation & Exposure
In addition to pursuing educational opportunities that will support schools and boost employability, the lifelong learning center will provide avenues for patrons to explore subjects of interest that do not closely align with their academia or profession. These opportunities will broaden individuals’ horizons, interests and experiences, which will in turn contribute to well-roundedness and overall mental health.
#6: Libraries are centers for lifelong learning

Outside industry examples

Khan Academy

Khan Academy is a non-profit educational academy with a goal of creating a set of online tools to help educate students. The website offers classes in art, math, science, and test preparation. Khan Academy is a good example to study not only for the valuable service they provide, but for the great job they’ve done in measuring the impact of their services; Khan Academy has multiple studies to show the benefit their service is having on student performance.

DataCamp

DataCamp is a for profit online learning platform offering classes in data fluency, data science, and several programming languages. Unlike Khan Academy, which provides free classes on a wide range of well-established topics, DataCamp offers paid classes on a select number of emerging topics.
What is Khan Academy?
Non-profit educational organization offering free classes in a wide variety of topics.

Khan Academy’s Key Features

Free and Inclusive
Because classes are free, Khan Academy is highly inclusive and has a wide reach. All of their classes are fully translated in six different languages, and some of their classes are translated into as many as 26 different languages.

Wide Variety of Topics
While the majority of Khan Academy classes are STEM related, they do offer classes in arts and humanities as well as classes in a number of practical topics like personal finance and test preparation.

Continued Efforts to Measure Impact
Khan Academy commissions research groups to conduct studies on the impact of their services and clearly publishes the results. There is a lot of easily available information on Khan Academy’s impact.

Challenge:
Many individuals have a need or desire to learn more about a given topic, but either don’t have the resources to take classes on the topic or lack the money to pay for such a class. Because of this condition, those individuals who do have resources or money to pay for classes are in a position of social advantage, and a social and education gap exists between those with resources and money and those without.

Solutions:
In 2008, Salman Khan created the Khan Academy to help provide free tools to help students. The non-profit academy has been highly impactful. The platform grew by over ten million users in the first four years alone. Now, the academy has a great amount of literature on the positive social impact resulting from their services.
#6: Libraries are centers for lifelong learning

Libraries could endorse and gamify platforms like Khan Academy

Strategy

Rather than try to recreate platforms like Khan Academy, libraries should endorse them, provide resources to build upon them, and create incentives for library patrons to use them.

Key Takeaway’s for Libraries

Curate, Don’t Create
Khan Academy, and several other similar platforms, are already well established and funded. Libraries could provide value to patrons by ensuring they have access to taking these courses and by providing individuals recommendations on which classes would be most beneficial to them.

Supplement
Libraries could supplement popular continuing education classes by asking local experts to provide in-person lectures on popular topics.

Leverage Gamification Best Practices
Leaderboards and experience points, for example, go a long way in incentivizing learners.

Benefits:

Endorsing and gamifying free learning platforms like Khan Academy would be an inexpensive way to foster community engagement and create positive social impact.

Resources Required to Start:

1. Sufficient computers and bandwidth to support persons who wanted to take free classes in libraries.
2. Gamification features for the persons who completed the most classes (e.g. local certificated, online recognition, etc.).
3. Communication plan to announce the availably of such services to local community members.
#6: Libraries are centers for lifelong learning

Recommendations for libraries in building lifelong learning programs

**Strategic Outcomes**

#1 Libraries continue to provide **access and opportunity** to individuals from all walks of life.

#2 Libraries continue to benefit the public good.

**Tactical Actions**

#1 **Setup infrastructure** to allow persons to take the wide variety of online courses in the libraries.

#2 Setup learning challenges on top of the free courses and **provide incentives and rewards** to those who complete them.

**Habits**

#1 Have a **communication plan** in place for library patron success stories.
What is DataCamp?
A for-profit computer and data science educational platform that offers classes on emerging topics.

DataCamp’s Key Features

Focused Content
Unsurprisingly, all of the classes offered by DataCamp are focused on data. Rather than try to cast a wide net, like most online learning platforms, DataCamp has only chosen a few topics and offers in-depth classes on them.

Gamification
DataCamp awards experience points for completion of each class, and each specific step with each class. They also provide dashboards to allow users to constantly see where they are relative to their goals.

Flexible Pricing Options
DataCamp is not free, but is affordable. They offer a small number of free classes, and then have monthly, yearly, and enterprise pricing options for those who wish to subscribe.

Challenge:
While there are several free, online, options for taking courses on well-established topics, there are comparatively few options for taking online courses on niche, emerging, topics. These topics are typically restricted to universities or “bootcamps,” both of which require substantial time and money.

Solutions:
DataCamp was created to allow individuals to take classes on emerging, niche, data topics in the midst of their busy work schedules. The classes they provide are affordable and uniquely tailored towards specific functions requiring data.
#6: Libraries are centers for lifelong learning

Libraries could help make options like DataCamp available to patrons

**Strategy**

In addition to providing infrastructure to allow patrons to take free online courses, libraries could pool resources to drive down the price of enterprise subscriptions to services like DataCamp.

**Key Takeaway’s for Libraries**

**Cooperate to Drive Down the Subscription Price**

DataCamp, and similar services (e.g. Metis) represent the opportunity to add tremendous depth to the learning content libraries help bring to patrons. Libraries, however, should cooperate to drive down the price.

**Supplement**

Libraries could supplement popular continuing education classes by asking local experts to provide in-person lectures on popular topics.

**Leverage Gamification Best Practices**

Leaderboards and experience points, for example, go a long way in incentivizing learners.

**Benefits:**

Subscribing to niche learning platforms like DataCamp would foster community engagement and create positive social impact.

**Resources Required to Start:**

1. Sufficient computers and bandwidth to support persons who wanted to take these classes in libraries.
2. Collaboration plan to negotiate pricing in subscriptions and sufficient funds to purchase the services.
3. Gamification features for the persons who completed the most classes (e.g. local certificated, online recognition, etc.).
#6: Libraries are centers for lifelong learning

Recommendations for libraries in creating lifetime learning models

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<td>#3 Build a “book” of interested libraries to drive down the price of subscriptions to services like DataCamp.</td>
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#7: Library leaders are civic leaders

Libraries are at the heart of the communities that they serve. While these communities continuously look to address common public issues, libraries promote access to diverse ideas and serve as a depository for vital information from government and community sources. Accordingly, libraries are considered a top-of-mind resource for becoming more civically involved while serving as an intellectual and service hub for all people.

MOMENTUM

Once was focused on as-needed support
Now is focused on being a center for civic activism
#7: Library leaders are civic leaders

Vision

Libraries continue to provide objective and unbiased information to aid in fulfilling civic responsibilities. They work in conjunction with local city halls and civic-interest groups to make civic participation more accessible and provide residents with the opportunity to gather facts and make their own informed decisions.

Since libraries have established themselves as an unbiased third party, they also help facilitate conversations between groups with different perspectives. The conversations are not limited to groups based on political affiliations, but also include groups with different backgrounds, cultures, faiths, ability, etc. As a result, libraries enable ongoing dialogue and serve as mediators for progress.

The North York Central Library branch of Toronto Public Libraries hosted a Syrian newcomer's event to welcome its newest patrons with welcome packets and tips on how to adjust to their new home.

Photo: Toronto Public Library
#7: Library leaders are civic leaders

Imagine

Ricky has been noticing a growing number of homeless in the community and wants to get involved in understanding the problem and helping them. One day, while walking past the local library, Ricky sees a poster for learning, engaging, and discussing the topic of poverty in the community. He walks in to learn more about the poster...

Librarian gives tour of library resources supporting the initiative

As you can see, we provide books and films on the topic of poverty to inform, share events in the community to engage, and host discussions here at the library to discuss the issue!

Hi! I saw the poster on learning, engaging, and discussing poverty. Could you let me know more about the initiative?

Hi yes I can! We have started this initiative to get people more involved in community issues – poverty being one of the most prevalent recently. Follow me.

Wow!

This is exactly what I’m looking for! I will check out a couple of these recommended books today and will look out for the next library discussion on poverty.

I’m happy to hear you want to get involved. We will send you reminders for the events through the email you signed up to the library with!
#7: Library leaders are civic leaders

Justification

Redefining Public Space
As an increasing number of public spaces are retooled and redesigned to provide a diverse set of utilization capabilities, communities will call upon libraries to provide new value for the space that the libraries inhabit. Libraries that put civic leadership at the top of this value list will significantly enhance their communities.

Rising Inequality
With a shrinking middle class and constant battle over government budgets, citizens will need more places to voice their concerns, tackle community issues, and become involved in the civic process.

Advocacy Challenges
In the process of learning to enable their citizen base, librarians have the opportunity to learn the fundamental skills necessary for the successful petition of resources from government officials. Additionally, libraries will have the ability to foster a new set of super supporters from their engagement with the civically-involved community.

Serving Diverse Roles
Since 64% of people already see the library as a gathering place to address local challenges, the library has the opportunity to act as a place to not only address said challenges but also to organize and rally in support of solutions.

The Conscious Consumer
The conscious consumer’s desire to become actively involved in their community will make this patron a natural supporter of the libraries involvement in the civic process.

The Social First
The social first brings many activities to the library including opportunities for diverse groups to both learn about other community members cultural background and to share pieces of their own cultural background. Opportunities for such cross cultural exchanges will become increasingly important for civic society.
#7: Library leaders are civic leaders

Benefits

Information access and intracommunal interaction are important components for any healthy civic society. Libraries have the opportunity to gain an increased level of societal and governmental importance in the communities that they serve.

- **Reinforcing the Social Fabric**
  In order for the civic process to be successful, citizens and civilians require mediums to discuss their issues, voice their concerns, and collaborate on solutions. Libraries are able to provide a space for such discussions to occur to the exclusion of no one.

- **Adding to the Library’s Value Proposition**
  To address the library’s awareness challenges, librarians and library staff can leverage their space to provide new resources and services to the greater public. By making the library a center for civic engagement, the library will both provide an additional service to the greater public and gain a source of advertising.

- **Internally Built Advocacy**
  In the process of empowering citizens to become more politically engaged, libraries will start to develop active bases within their respective communities. In the event of a pending budget crisis or reorganization of local government priorities, the in-house built activist group could become the libraries stalwart defenders and preservers.
#7: Library leaders are civic leaders

Outside industry examples

**REACT**

REACT standing for Read, Engage, And Come Together is a Chelmsford Library initiative created to bring civil discourse and action to important topics. The program is setup to supply reading materials to inform the community, share events taking place nearby to engage the community, and lastly, host discussions around events like TED Talks to drive discourse in the community. Altogether, the REACT framework enables and facilitates community education on topics and brings them together to discuss.

**Handprints**

Handprints is a frame of mind for going about sustainability. If our footprint is the negative impact our actions have on the world, our handprint is the positive action we can take to reduce our footprint and make the world a more sustainable and healthy place. By taking action such as setting up a bike rack at the library or installing recycling bins around the community we can create and track our positive “handprint” to leave a net positive impact on the world.
Challenge:
As the world becomes ever more complex and ambiguous, it can be difficult to grasp the full scope and context of the issues that face our communities and society as a whole. Furthermore, it can be difficult to find the right resources, open yourself up to opposing viewpoints and connect with people over discussions.

Solutions:
Chelmsford Library’s REACT initiative solves this problem by providing a range of content around a specific issue to inform and engage community members around civic issues.

Poverty and food insecurity is one of the topics being covered this year. For the topic the library shares a comprehensive brochure detailing background information on the problem and recommends movies to watch and books to read. On top of this, they highlight events taking place around the area such as volunteering at Table of Plenty. Lastly, the library acts as a hub to bring everyone together to have conversations around the books recommended and TED talks.
#7: Library leaders are civic leaders

Libraries could expand REACT and better understand the community

Strategy
Libraries can implement the REACT initiative to increase engagement on important topics and keep the library top of mind. Additionally, the library can collect data to better understand and cater to the community.

Key Takeaway’s for Libraries

Expand the Topics Covered
Libraries could tailor the topics covered to specific issues they see being more relevant in their community and as such, provide the opportunity to bring people together and create a solution.

Understand Community Values
By monitoring attendance on both library and community events and tracking book and film/podcast activity, the library can gain greater insight into what the community values and focus in on these areas.

Benefits:
Educate and engage the community on important community and societal issues.

Resources Required to Start:

1. Sufficient funds to facilitate the resources for education and events for engaging.
2. Project manager to oversee topic programming and budget management.
3. Setup data sources in order to measure topic and community engagement.
#7: Library leaders are civic leaders

Recommendations for creating civil discourse programs

<table>
<thead>
<tr>
<th>Strategic Outcomes</th>
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<tbody>
<tr>
<td>#1 Libraries continue to provide <strong>education and engagement</strong> to individuals from all walks of life.</td>
</tr>
<tr>
<td>#2 Libraries continue to <strong>benefit the public good.</strong></td>
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<table>
<thead>
<tr>
<th>Tactical Actions</th>
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</thead>
<tbody>
<tr>
<td>#1 Setup <strong>infrastructure</strong> to allow persons to understand the topic and engage in it with the community.</td>
</tr>
<tr>
<td>#2 Setup <strong>data sources</strong> to understand the community’s engagement in the topics.</td>
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<tr>
<th>Habits</th>
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<tr>
<td>#1 Have a <strong>communication plan</strong> in place for topic engagement success stories.</td>
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</table>
Handprints provides a framework for making our footprint positive

What is Handprints?
Handprints is a framework for looking at the challenge of sustainability through a positive light.

Handprints Key Features

Taking Action
The Handprints framework and accompanying Handprint Parties provide actionable insights to help make your impact on the planet net positive.

Shifting Community Attitude
Handprint Parties brings the community together around the idea that they can take actions to improve the planet, as such, these ideas can spread and make sustainable living an easier task across the whole community.

Adaptable to the Community
The workshops that take place between community partners and libraries can be adapted to the environmental issues specific to the community. As a result, the community can then see more immediate impacts in the actions they take.

Challenge:
The challenge of sustainability has been framed largely around the negative impact our actions bring through our footprint, however this outlook provides limited answers and creates anxiety around how we can individually tackle the problem.

Solutions:
Handprint Parties is an event initiative hosted by Portsmouth Public Library (NH) and attempts to connect community partners with the public in order to raise awareness on what the community can do to create a net positive impact through their handprints.

An example of one of these handprint party’s was through a partnership with Portsmouth’s Seacoast Renewable Energy Initiative (SEAREI). Working with the library, they show how to cut energy use and save money on electric bills through low-cost, do-it-yourself actions.
Libraries could host Handprint parties to teach sustainable actions

**Strategy**
Provide information access and intracommunal interactions around the idea of Handprints to raise awareness and initiate action around sustainability in the community.

**Key Takeaway’s for Libraries**

**Expand Capabilities with Community Partnerships**
Handprint parties represent the opportunity for the library to become more connected with community members and businesses around the problem of living sustainably.

**Quantifiable Action**
Through community datasets, libraries can measure and track both the community footprint and handprint in order to understand how the community’s actions are effecting their environment and set goals for a net positive community.

**Benefits:**
Hosting Handprint parties builds community engagement and creates positive impact around building a sustainable planet one community at a time.

**Resources Required to Start:**

1. Sufficient space and employee time to set-up and host Handprint parties.
2. Marketing in order to get community partners involved and community members engaged.
3. Datasets to track and measure the impact of each workshop and the impact handprints can have on the community.
#7: Library leaders are civic leaders

Recommendations for libraries in creating civil discourse programs

<table>
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<td>#1 Libraries provide <strong>information and opportunity</strong> for individuals to tackle sustainability in the community.</td>
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<tr>
<td>#1 <strong>Setup infrastructure</strong> to hold events that will give greater exposure to handprint actions.</td>
</tr>
<tr>
<td>#2 Set net positive impact targets for the community and <strong>track through data analysis</strong> to provide a visualization on the state of the community’s handprint and footprint.</td>
</tr>
<tr>
<td>#3 <strong>Build a repository of previous workshop lessons</strong> to make handprint actions more accessible to the whole community.</td>
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How do we categorize recommendations?

**Strategic Imperatives**

Every endeavor should start with a clearly defined strategic outcome and an agreed upon set of success criteria through which an effort can be measured. Only when the end goals have been properly defined should the means be considered.

In the first section of our recommendations, we define the strategic outcomes we recommend adding to those already in place at individual libraries.

**Tactical Actions**

Once strategic outcomes have been defined, the individual actions to accomplish those outcomes can be properly defined and resources allocated towards those actions.

The tactical actions suggested herein are not in order of importance, nor are they meant to be taken as a batch. Because the library landscape varies throughout the country, their suitability and priority are at the discretion of individual library leaders. These tactical actions will be more or less relevant depending on the individual library assessing them.

**Habits**

Positive individual habits are a major contributing factor to the success of any team.

Similar to tactical actions, these suggested habits are not ordered by importance nor meant to be taken as a batch. These are simply small habits that will overall benefit libraries, library leaders, and/or patrons.
## Strategic imperatives

<table>
<thead>
<tr>
<th>Benefit the Public Good</th>
<th>Provide Equal Access &amp; Opportunity</th>
<th>Foster Community Engagement</th>
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<tr>
<td>Libraries represent the very best of American democracy. They uphold the principles of freedom, privacy, access, social responsibility, and benefit the public good in many ways. Accordingly, any actions taken by libraries should continue to be consistent with this strategic outcome.</td>
<td>As the American business and political environment increasingly focuses on extreme positions, libraries have become among the last bastions of equal access and opportunity. Any actions they take must continue to provide information and services that are equally available to all users.</td>
<td>Libraries have earned a tremendous amount of public trust. As access to information continues to become more convenient online, libraries should leverage this trust and focus efforts outside of library walls. Fostering community engagement is therefore a strategic imperative.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Boost Image &amp; Awareness of Libraries</th>
<th>Bolster Influence with Policy Makers</th>
<th>Measure &amp; Communicate the Impact of Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research trends clearly indicate libraries are facing brand awareness challenges. Enhancing the brand image of libraries is a critical strategic endeavor. Due to the “google effect,” libraries will particularly need to stand out as innovative curators of information.</td>
<td>Research trends highlighted the challenges libraries are facing in negotiating with policy makers to acquire critical resources. Government members and board members are increasingly demanding the “business case” behind libraries’ requests for resources, which often proves challenging. Libraries should therefore add “increasing their influence” as a strategic priority.</td>
<td>The Measures that Matter initiative is a worthy endeavor, and supporting it should be a strategic priority for all libraries. Many of the challenges libraries face, especially requesting resources from policy makers, will be made easier when libraries are able to use data to make the case for the important role played by public libraries.</td>
</tr>
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</table>
Tactical actions

Create or Partner with a Digital Advocacy Service
Libraries are not alone in their struggles for advocacy with policy makers. There are a number of firms and organizations seeking to mobilize campaigns aimed at changing public policy. Several companies (e.g. Muster) have emerged in response to this trend. Libraries should consider working with such firms on critical issues.

Host Data Challenges on Sites Like Driven Data
Hosting data challenges on sites like Driven Data or Kaggle would be a low-cost, simple way to generate momentum in the Measures that Matter initiative. By crowdsourcing data solutions from data enthusiasts, libraries would get several models and suggestions for how to use data and what data to collect going forward.

Connect Platforms on the State & National Level
There are numerous incentives to connect platforms at the state and national level. One of the immediate benefits is that it would establish a better structure for libraries to drive down prices on the licenses and services they share in common.

Form Decision Teams to Test Major Decisions
Using data to inform decisions is the best case scenario, but it is not always possible. For such situations, a best practice is to form and use a decision team to test decisions before implementing them. Such teams could be formed from library patrons, employees, government officials, and board members, all of whom represent a different point of view.

Ask Patrons for Consent to Collect Data
Libraries have to balance the desire to use patron data to measure impact and inform decisions with the belief that patron data should be private. A good way to do this is simply to ask patrons and to explain how the data will benefit the libraries. Libraries have a tremendous amount of public trust; many patrons will likely consent to having libraries track their personal and usage data.
Tactical actions (continued)

Create a Funding Platform Similar to gofundme
Libraries could benefit through the creation of a library-internal funding platforms whereby employees can build “cases” around critical issues they want to solve or programs they want to build. Such platforms could be expanded at the state and national level to allow individual libraries to build the case for programs they would like to host.

Empower Patrons to Share Items & Content
A great way to foster community engagement is to encourage patrons to upload and share heritage-based documents (e.g. family trees, interview, etc.). Doing so requires either building a platform for uploading user-generated documents or partnering with a firm that provides such a service.

Host Leaderboards & Praise Library Patrons
Leaderboards which offer public praise are a great way to encourage patrons and to incentivize community engagement. It is also a great way to promote and measure impact for library services.

Connect Patron-Uploaded Docs to Additional Info
A unique opportunity for libraries to add value is to identify patterns and connections in the documents they upload. Conducting link-analysis of user-uploaded documents would be a fun feature for patrons seeking to learn more about their history.

Host Leaderboards & Reward Employees
Leaderboards offering public praise are also a great way to encourage employees and to incentivize employee advocacy. There are a number of free sites (e.g. Klout, Social Mention) for measuring online influence, so there are several easy options for beginning such an initiative.
Habits of thought and action

Collect Data & Quantify the Impact of Services
The Measures that Matter initiative seeks to find best practices and scalable solutions by using library data to quantify the impact of libraries. While the initiative is under development, a good practice is simply to ask “how am I measuring this” for services rendered. If there is no metric in place, create one, even if it is just a simple excel spreadsheet. The habit counts.

Communicate Success Stories
Success stories, like advertisements, take time and repetition to have their desired impact. Consistency is key. Having a communication plan in place for all success stories is a good habit to maintain. Even things as simple as forwarding thank you emails, or links to success stories on websites, can have an impact over time.

Seek Ways for Patrons to Contribute
Libraries are increasingly being called to serve as a means for community engagement. In this environment, patrons should be empowered to contribute goods and services, not just receive them. Accordingly, make a habit not just of asking how can libraries serve patrons, but how can libraries empower patrons to engage with their local communities.

Rehearse & Test Services & Options
The wide and varied landscape of libraries suggests the services of one library might not necessarily succeed in another. As a result, library leaders often have to critically evaluate best practices from other libraries before implementing them locally. Creating a habit of rehearsing and testing services and options is a good way to ensure things that sound like good ideas, and that may already have worked elsewhere, would indeed work locally.

Remind Patrons How They Can Advocate for You
Libraries have earned a great deal of trust from their patrons. However, research indicates there is an awareness gap among patrons, especially on how libraries are funded. Informing patrons of key library issues and how they can support libraries by advocating for them is a good technique.
Thank you!

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
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<tbody>
<tr>
<td>Cindy Aden</td>
<td>Chief Officer, Washington</td>
</tr>
<tr>
<td>Stacey Aldrich</td>
<td>Chief Officer, Hawaii</td>
</tr>
<tr>
<td>Jamie Ball</td>
<td>Development Director, Arizona</td>
</tr>
<tr>
<td>Timothy Cherubini</td>
<td>Executive Director, COSLA</td>
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<tr>
<td>Colleen Eggett</td>
<td>Chief Officer, Utah</td>
</tr>
<tr>
<td>Miguel Figueroa</td>
<td>Center for the Future of Libraries</td>
</tr>
<tr>
<td>Amy Garmer</td>
<td>Director, Aspen Institute Dialogue on Public Libraries</td>
</tr>
<tr>
<td>Becky Heil</td>
<td>District Consultant, Iowa</td>
</tr>
<tr>
<td>Jeremy Johannesen</td>
<td>Executive Director, New York Library Association</td>
</tr>
<tr>
<td>Alice Knapp</td>
<td>President, Ferguson Library, Stamford Connecticut</td>
</tr>
<tr>
<td>Dawn LaValle</td>
<td>Director, Library Development Connecticut State Library</td>
</tr>
<tr>
<td>Jennifer Nelson</td>
<td>Chief Officer, Minnesota</td>
</tr>
<tr>
<td>Vailey Oehkle</td>
<td>Library Director, Multnomah County Oregon</td>
</tr>
<tr>
<td>Timothy Owens</td>
<td>Assistant State Librarian, North Carolina</td>
</tr>
<tr>
<td>Lee Rainie</td>
<td>Pew Research</td>
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<tr>
<td>Tim Rogers</td>
<td>Library Director, Jacksonville Florida</td>
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<tr>
<td>Chuck Sherrill</td>
<td>Chief Officer, Tennessee</td>
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<tr>
<td>Maureen Sullivan</td>
<td>Former President, American Library Association</td>
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