



The Seattle Public Library

# Technology and Access Service Priority Final Report

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12 September 2014

## Executive Summary

The Technology and Access Service Priority Advisory Committee focused on four areas:

- Digital Discovery and Access
- Learning, Entrepreneurship & Creativity
- Digital Inclusion and Literacy
- Patron Engagement & Interaction

In addition, two adjunct areas came through as part of our many discussions and are addressed separately in the report – **emerging technologies** and **open data**.

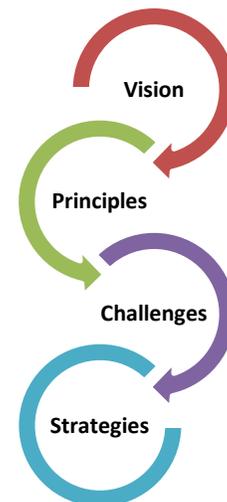
Taken as a whole, the recommendations in the report all converge on the concept of the Library as *the community's center for information*. We urge the Library to define its role in the community more clearly and solidly as Seattle's primary resource for information access, information literacy and fluency development, access to and support with informal learning opportunities, participation in economic development activities, and a place for collaboration and creative pursuits.

For each area we examined, the team of internal and external experts focused on defining **vision statements**, **guiding principles**, **challenges**, and **strategies** (specific initiatives).

For **Digital Discovery and Access**, we set forth several recommendations for improving our online tools, using those tools more effectively, and for taking a leadership role in improving findability of library resources more generally.

For **Learning, Entrepreneurship, and Creativity** we recommend the library expand our services and resources to support lifelong learners, those interested in participating in business and economic development activities, and those seeking to develop and express their creativity.

For **Digital Inclusion and Literacy** we define an evolutionary model ranging from Access to Literacy to Fluency and finally to Expertise, and outline the ways the Library can develop and target our services along that spectrum.



Finally, for **Patron Engagement and Interaction**, we describe a model for conceptualizing the *engaged patron* (as opposed to the disconnected, aware, or active patron) as well as principles and strategies for using technology to create meaningful and impactful ways to enable patron engagement that supports the efforts of the Library as we move our focus from completing transactions to creating experiences.

We have also included recommendations for emerging technologies, and suggest that the Library not only provide access to new technology devices but also provide ways for the community to get engaged over social and cultural issues related to emerging technologies. We support these suggestions with examples, such as Google Glass.

We also suggest that the Library play a stronger role in municipal and other open data projects, such as [data.seattle.gov](http://data.seattle.gov). As information scientists, librarians are a natural fit to help members of the public use and understand the large amounts of data now freely available from local, state, and federal governments.

### Service Priority Themes

The report also responds to what have emerged as general “themes” across all the service priority areas.

- Library as Information Gateway: The Library can serve the community’s information needs as a partner, as a supporter, or in a leading role.
- Library as Trusted Convener: The Library is viewed as a neutral connector and convener, able to bring together local organizations to facilitate collaboration, coordination, partnerships, and simplify access for residents to the full range of technology and access programs, resources and services available in our community.
- Need to Raise Awareness of Library Services: We must promote our services but also develop a comprehensive marketing strategy that creates a new community identity for the Library and is carried out by all library staff.
- Make Library Resources Easier to Find: How can the Library grow our value to the community and develop new ways to make it easy for patrons to find, access, and engage with our digital resources and with each other?
- Re-imagine Library Spaces: The Library needs to re-imagine library spaces to meet the evolving needs of our community, particularly providing more digital-friendly and collaborative work spaces.
- Go Digital/Go Mobile: The Library's services need to be optimized for mobile users, digital natives, and the digitally-fluent.
- Create a Greater Presence in the Community: The Library needs to expand our presence in the community to provide services where people are, develop relationships with organizations that are mission-aligned with the Library, and serve as technology adoption and policy advocates and influencers within Seattle and within the public library community.
- Help Staff Develop New Skill Sets: The Library needs to invest in technology skills and community engagement training for library staff.

## Technology as Tool

Our patrons don't come to the Library to "use technology" – they come to research topics, find information and answers, perform tasks, learn new skills, communicate with family and friends, and entertain themselves. Computer technology is an increasingly critical means to those ends. Technology can enable improved discovery of our resources and services, and can enable new ways for patrons to achieve their goals and to interact and engage with the library and with each other.

Library staff, however, are an even more critical enabler and deliverer of these recommended strategies and vision for the Library. Fulfillment of the vision and strategies outlined here will require new investments in skills and capabilities and significant re-allocation of existing positions and capacities. The Library must reimagine our staffing and service models, and invest in staff resources and in developing new competencies and levels of expertise to make the proposed future state a reality.

This report considers technology as a means to achieve innovative ends for our community in a variety of important and emerging areas. This report should not be construed as the Information Technology division's future work plan; indeed, the majority of the recommendations outlined here will be the responsibility of virtually everyone in the Library – Public Services, Collections & Access, Marketing & Online Services, and other library divisions – to carry out. True innovation will require fundamental changes in our overall operational models and processes, and in the way we engage with our patrons and partners. It will require everyone to develop a higher degree of comfort with and skill in using technology tools to help patrons achieve their objectives.

This report recommends ways in which technology can be leveraged to further the mission of the Library, expand our role and relevance to the community, and increase the value of our services for our patrons.

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# Technology and Access Service Priority Final Report

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## Library Service Priorities Overview

Over the next several years, The Seattle Public Library will focus on five priority initiatives that are grounded in the Library's Strategic Plan and will assure our long-term success as we adapt to our changing world. The Technology and Access service priority is one of these five initiatives with the goal to **enhance technology to provide discoverability and increased access to collection and materials, and enhanced informational assistance, services, and experiences.**

This report considers *technology* to be a critical enabler of library services and is fundamental to achieving the Library's mission *to bring people, information and ideas together to enrich lives and build community*. Technology is a tool that can enable delivery of information, library services, and access to resources in new ways and to new audiences.

The Technology and Access service priority was supported by an advisory committee that featured staff of The Seattle Public Library as well as representatives of The Seattle Public Library Board of Trustees, The Seattle Public Library Foundation Board, the Friends of The Seattle Public Library, Library Union Representation and members of the broader technology and business communities of Seattle.

The advisory committee focused on four areas.

- Digital Discovery and Access
- Learning, Entrepreneurship, and Creativity
- Digital Inclusion and Literacy
- Patron Engagement and Interaction

In addition, though not explicitly discussed, the topic of "emerging technology" was introduced as an adjunct to several discussions – both with the advisory committee and in other contexts – and is called out in a section of this report. Likewise, the Library's role vis-à-vis municipal open data projects – such as [data.seattle.gov](http://data.seattle.gov) – was discussed and is further explicated in this report.

The work of the Technology and Access Service Advisory Committee was to help define the Library's unique role in the community in the four areas; develop guiding principles that will help library leadership set goals and priorities and make decisions about investments and opportunities; identify key partnerships to help us achieve our goals; and propose initiatives and areas for strategic growth that will guide development of the Library's technology budget and grant requests for 2015 and beyond.

## About this Report

This report is structured according to the advisory committee's discussions on the four areas outlined above, plus additional areas that emerged throughout the discussions and that merit separate sections of their own. For each of the areas, there is a discussion of:

- **Current State:** What the Library is currently doing or actively planning to do for the area in question.
- **Vision:** Aspirational descriptions of what the Library would like to achieve or accomplish in the mid-term or long-term future.
- **Principles:** Statements that influence and guide the Library in making a decision or considering an opportunity.
- **Challenges:** The internal and external pressures that exert a decisive influence on an organization's likelihood of future success.
- **Strategies:** Concrete actions that seek to resolve the identified challenges, help us to achieve our vision, and that will be guided by our principles.

In addition, the report discusses some more holistic **themes** that have emerged as common concerns or trends across the service priority efforts and in other contexts within the Library.

## Themes

### Library as Information Gateway

The theme refers to the extent of the Library's ownership of the media and services our patrons' access. According to the ALA's 2011 policy brief "Confronting the Future: Strategic Visions for the 21<sup>st</sup> Century Public Library" the distinction between a "portal" library vs. an "archive" library is described as:

At one extreme lies the pure portal library, a "window" through which the library's patrons can access a vast range of media resources, all owned and hosted by other organizations.... At the other extreme lies the pure archive library, whose role is to possess documentary materials in a range of genres and media, whether physical or virtual.<sup>1</sup>

Beyond collections and materials, this question can be posed about information services as well.

Of course, the Library does not need to settle at either end of the spectrum, nor do we need to answer this question with regard to the entire system. But it is important to remember that we have valid options and can make choices about the design and level of ownership of our information services, and that services delivered in partnership or services to which we refer patrons can all be classified along this spectrum as "library services."

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<sup>1</sup> Levien, Roger E. "Confronting the Future: Strategic Visions for the 21<sup>st</sup> Century Public Library." ALA Office for Information Technology Policy. June 2011.

## Library as Trusted Convener

Across Service Priorities areas, the Library is viewed as a neutral connector and convener, able to bring together local organizations in all four Technology and Access areas to facilitate collaboration, coordination, partnerships, and simplify access for residents to the full range of technology and access programs, resources and services available in our community.

As this report will propose, the Library can and should position itself in Seattle as a *creator of digital community* and as a resource for citizens to safely engage with information technologies, learn and explore their uses and benefits, and examine their social and cultural implications and impacts.

The experience of the Technology and Access Town Hall event was one example of how this role for the Library can play out in Seattle. The event, which was focused on Library services to support the start-up community, was attended by dozens of guests who self-identified as non-Library users and yet expressed support for the Library expanding its services in this area and engaging directly with members of the community to co-create new service models.

Similarly, the City's Start-up Liaison has found that local businesses need access to local skilled talent. There are a number of organizations providing training and educational opportunities for Seattle's young adults to develop these skills, but there is no single place for young people to go to connect with this growing array of resources. The Library has the unique ability to bring these groups together and connect them to Seattle's young people.

## Raise Awareness of Library Services

Community members on the Technology and Access Advisory Committee frequently raised the issue that they were unaware of many of the programs and services available at the Library. These sentiments were repeated by several participants at the Technology and Access Town Hall event. Solutions that were suggested focused on redesigning the library's web site and doing more marketing of library services.

Clearly, community awareness is a barrier to access. But this report wishes to emphasize that efforts to raise awareness need to go beyond simply increasing the promotion of the full menu of library programs and services and updating our online presence. Because of our incredible breadth of services and the overwhelming amount of information our patrons are bombarded with every day, we cannot expect individuals to grasp or retain the entire array of our offerings. A new web site won't matter if people don't think to visit it in the first place.

Rather, we must develop a comprehensive marketing strategy that creates a new community identity for the Library and is carried out by all library staff. A successful strategy allows and encourages individuals to identify with the library as Seattle's *community center of information and learning* and not simply as a provider of materials or a facilitator of programs.

Such a strategy would have as its goal not that every resident of Seattle knows *a priori* that the library offers particular services, but rather that a resident who finds that she suddenly has a need to learn a new skill or research an issue thinks to check in at the library because she recognizes that the library is *the kind of place that offers those services*.

It is beyond the scope of this report to make recommendations for how such a strategy might be developed and implemented, but we encourage the ongoing efforts to develop a new brand identity for the Library to take these suggestions into consideration.

## **Make Library Resources Easier to Find**

This theme is one of the primary focuses of the Technology and Access service priority and is addressed in detail in the Digital Discovery and Access section below.

## **Re-imagine Library Spaces**

In order to transform into a community center for information, the Library needs to re-imagine library spaces to meet the evolving needs of our community. This can range from providing digital friendly furniture to more collaborative work spaces. Spaces should be comfortable, flexible, and adaptable to serve multiple uses, changing communities, and all age groups.

## **Go Digital/Go Mobile**

The advisory committee regularly emphasized the importance of recognizing the growth of access devices such as smartphones and tablets and the need for the Library's services to be optimized for mobile users and digital natives (or the digitally-fluent). Such users don't even necessarily view what they are doing as "using technology" – it is simply the way one interacts with the world.

This emphasis was further underscored by the release of the "Information Technology Access and Adoption in Seattle" report that revealed that smartphone ownership among residents has climbed from 35% in 2009 to 76% in 2013 and tablet ownership is at 66%<sup>2</sup>. The patron survey conducted by the Seattle Culture and History Service Priority work group found that 87% of respondents wanted to access digitized local culture and history materials online.

## **Create a Greater Presence in the Community**

As with the other service priorities, it is clearly important that the Library expand its presence in the community to provide services where people are, develop partnerships and other types of relationships with organizations that are mission-aligned with the Library, and serve as technology adoption and policy advocates and influencers within Seattle and within the public library community.

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<sup>2</sup> City of Seattle. Department of Information Technology. *Information Technology Access and Adoption in Seattle* (May 2014). Available at [http://www.seattle.gov/Documents/Departments/Tech/CofS\\_TechUse\\_r8single.pdf](http://www.seattle.gov/Documents/Departments/Tech/CofS_TechUse_r8single.pdf). Accessed July 1, 2014. (Figures cited are inclusive of online survey respondents only).

This theme directly relates to the notion of “Library as Trusted Convener” (discussed above) and further emphasizes the idea of the library (whether conceived of as a physical presence or a set of services that can be delivered anywhere) as the community’s center for information and learning.

## Help Staff Develop New Skill Sets

The need to invest in technology skills training for library staff is critical. The discussion in this report under the Digital Inclusion and Literacy section about the need to evolve library technology skills training from focusing on basic literacy up to “digital fluency” or even “digital expertise” can easily apply to our own staff as well.

Furthermore, many of the recommendations in this report are not necessarily technological in focus but mirror other service priority reports in calling for a more intentional and strategic focus on outreach and community engagement, which are activities that require new skills and approaches to staff development as well.

Finally, there are fundamental skills necessary for staff to be successful in a complex organization – skills such as customer service, project management and effective communication. The Library needs to invest in staff development at both these fundamental levels as well as the level of specific technology skills and competencies.

## A Note about Resources

Fulfillment of the vision and strategies outlined here will require new investments and/or re-allocation of existing positions and capacities. The Library needs staffing and scheduling models to execute on these recommendations and to raise awareness of the variety of programs and services we offer and our role in and value to the community as its information center.

Many of the recommendations in the report, for example, require a great deal of community engagement – not simply taking library programs and delivering them in other venues, but building new relationships, listening to and responding to expressed needs, developing new partnerships, bringing back new ideas and lessons learned, and being embedded in the places and organizations where our patrons (and potential patrons) already are. Some of this work is already successfully underway, but we need to build on that by creating the systems and structures to allow staff Library-wide to engage more fully in the community.

Being “scheduled for the desk” is commonly cited as an obstacle to doing this kind of work. However, desk schedules are not a part of contractual or posting date requirements. Library staff, regional managers, and schedulers have to work together to create a responsive scheduling environment that takes into account the reality of contractual agreements, library staffing needs, and the greater nimbleness and responsiveness required to support the kinds of collaboration, engagement, and relationship building the report (and others) recommends.

Finally, the Seattle Public Library has a strong volunteering program that brings in adults and teens to support and assist the work of the Library. However, volunteers need to have opportunities to move beyond the current role they play in providing service to customers. Working with Union leadership new volunteer roles need to be created to provide Library staff more flexibility for getting into the community where they are needed and to permit technology and other subject matter experts from the community to partner with librarians in the delivery of Library programs and services. The use of staff or volunteers will vary from branch to branch based on community needs and staffing interests and abilities. In all cases, librarians will lead planning and evaluation of all programs and services.

## **A Note about Outcomes and Performance Measures**

This report does not explicitly define desired outcomes or how performance of the recommended initiatives should be measured. Nevertheless, the Library must develop a more outcomes-based approach to the work we do and have a clear understanding of how the success (or otherwise) of that work is to be measured and assessed, and how the work of the Library helps us achieve the proposed visions outlined in this and other service priority reports.

This process need not be difficult. The Library could define a finite number of broad goals and corresponding metrics derived from the service priorities.

We may, for example, assert that the ability for users to contribute user-generated content (UGC) to BiblioCommons improves the discoverability of content, which is a desired outcome. We can, therefore, conclude that the amount of UGC contributed by our patrons is an indicator of improved discoverability. Following that, we should set a goal to increase the amount of UGC produced by our patrons. We would then prioritize services, campaigns, and other activities that contribute to that goal. Setting such a goal would help align the efforts of program and service managers to prioritize those activities that generate UGC for the catalog (and, importantly, to *not* prioritize the activities that don't).

The Library should consider using a “Theory of Change” approach in defining our desired outcomes or goals and aligning them to actions designed to achieve those outcomes and goals. According to the Center for Theory of Change:

“Theory of change is a rigorous yet participatory process whereby groups and stakeholders in a planning process articulate their long-term goals and identify the conditions they believe have to unfold for those goals to be met. These conditions are modeled as desired outcomes, arranged graphically in a causal framework.”<sup>3</sup>

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<sup>3</sup> Taplin, Dana H. and Heléne Clark. “Theory of Change Basics: A Primer on Theory of Change.” March 2012. ActKnowledge, New York. [http://www.theoryofchange.org/wp-content/uploads/toco\\_library/pdf/ToCBasics.pdf](http://www.theoryofchange.org/wp-content/uploads/toco_library/pdf/ToCBasics.pdf)

For a recommended approach to performance measurement that is linked to goals, see also how the Boston Public Library defined eleven “Strategies” backed by 22 “Measures” on the City of Boston’s open data platform, Boston About Results (BAR).<sup>4</sup>

## Digital Discovery and Access

### Overview

The library’s online public access catalog and other online access services have evolved to provide new ways for patrons to discover our materials, contribute their own content about the materials they use, and interact with each other about books, music, and movies. The last few years have also seen rapid advances in the availability of downloadable eBooks, audio, and video, as well as the growing importance of social networking.

In this context, *discovery* refers to the process of finding relevant library materials through searching, browsing, narrowing, and sorting. A *discovery product* is an online tool that provides interfaces to enable discovery, and may also include the ability for patrons to personalize, annotate, review, rate, and recommend library materials to aid the overall discovery process for themselves and others. *Access* refers to the process whereby patrons ultimately request and acquire the resources they have discovered.

The Technology and Access Advisory Committee considered the following questions related to Digital Discovery and Access.

- How can the Library continue to grow and develop new ways to make it easy for patrons to find, access, and engage with our digital resources and with each other?
- How can the Library grow its value to the community by providing access and increased discoverability of digital content as well as traditional library-owned materials?
- What is the Library’s role as an advocate for improved access to digital content, especially commercial content licensed from resellers?

### Current State

The Library’s current discovery environment has improved significantly following the 2010 adoption of BiblioCommons. Nevertheless, the rise of new formats, such as eBooks, downloadable media, and streaming content, presents discovery challenges for patrons and staff.

BiblioCommons continues to undergo almost continual development and discovery improvements, with new releases and new functionality being released nearly every 2 weeks. The Library is contributing to some of that work via a “sponsored project” funded by The Seattle Public Library Foundation in 2013.

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<sup>4</sup> [http://www.cityofboston.gov/bar/scorecard/details.html?contextId=111654375223408&isExternal=\\_external](http://www.cityofboston.gov/bar/scorecard/details.html?contextId=111654375223408&isExternal=_external)

The Library's "E-Books and Downloads" site was significantly redesigned in 2012 to accommodate new formats and the proliferation of device types.<sup>5</sup>

Furthermore, the Library has grappled for decades with issues of discovery and user education related to "databases" – online research and learning tools that are provided by third-parties. However, efforts are underway to make improvements where resources and technology allow.

In 2013, the "Search Optimized Cataloging" project team issued recommendations and performed some tasks designed to raise the search relevance of high-value online resources such as "Mango Languages" in the catalog.<sup>6</sup>

Members of The Seattle Public Library have been active in the ReadersFirst movement - a national coalition of public libraries who have partnered with eContent vendors on improving discovery and integration of eContent platforms.<sup>7</sup> ReadersFirst has published a resource guide for eContent platforms to aid libraries in evaluating products, and it is currently working on a project to develop a set of eContent discovery and lending standards for software developers.

## Challenges

Several trends and institutional factors present challenges to the library's ability to offer greater ease-of-use of digital services and access to online resources.

- **Low awareness of full range of library digital resources.** The broader theme of awareness applies directly to the topic of discoverability – no amount of product or data re-design will help attract new patrons who aren't aware in the first instance that the library provides e-Books, research databases, online learning services, downloadable music, and streaming media.
- **Availability and cost of digital material.** Libraries still don't have access to all published digital material from some publishers, and some eContent remains available only at inflated prices. Different licensing models amongst publishers further complicate this issue and reduce the library's buying power.
- **Proprietary discovery and lending products.** Resellers of library e-Content provide online products that take library users outside the library's own online space; introduce different interfaces, vocabularies, and user design principles; and interfere with the relationship of the patron to the library. This experience causes confusion for patrons and brand fragmentation for libraries.
- **Digital Rights Management.** DRM on digital media presents access and compatibility challenges for patrons. The library has had to invest considerable resources in developing instructional material and programs just to help people get eBooks onto their devices.

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<sup>5</sup> <http://www.spl.org/library-collection/e-books-and-downloads>

<sup>6</sup> <http://infonet/Teams/WorkGroups/SeaOptCatProj/SitePages/Home.aspx>

<sup>7</sup> <http://readersfirst.org/>

- **Traditional library practices and conventions.** Some long-standing library classification systems and information organization practices are “item focused” (i.e. “this is what we have and what it is like”) and not “patron focused” (i.e. “what do you want to know and how can we connect you with useful information”). These practices have also relied on assumptions that librarians would be readily available as information mediators to help assist patrons in locating relevant material.
- **Limited adoption of existing discovery tools by library staff.** BiblioCommons provides a highly flexible platform for digital curation and building digital displays. The Library has only scratched the surface of the ways in which BiblioCommons can be used to enrich library content.
- **Changing patron expectations for online experiences.** Commercial search services and storefronts have defined different user expectations than what libraries have traditionally offered in online services. Natural language and keyword search is more ubiquitous than structured language search; up-front personalization and anticipation of user needs is more prevalent; and a high bar has been set for the relevance and immediacy of information seeking results.

## Vision and Guiding Principles

The Technology and Access Advisory Committee is putting forward the following vision statements and guiding principles that define ways for the library to remain vital to our community in the area of digital discovery and access.

In addition to the below, the Library should follow the guidelines and principles outlined in the U.S. Digital Services Playbook<sup>8</sup>, published by the U.S. Chief Information Officer’s office.

### 1. All library materials are discoverable and accessible/requestable via a single, easy-to-use online library-branded environment.

- 1.1. The library will work with our partners to expand the scope of materials that are discoverable via the library catalog.
- 1.2. The library will catalog materials and resources to optimize their discoverability for natural language/keyword searches.
- 1.3. The library will work with eContent vendors to ensure that their products are fully interoperable and integrated with library discovery platforms.
- 1.4. The library will play a leadership role in effort to create a more seamless user experience between library systems and products offered for library e-lending.
- 1.5. The library will design and develop instructional programs, support services, and documentation that focus on use of the library catalog rather than vendor-supplied platforms and products.

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<sup>8</sup> U.S. Government. “Digital Services Playbook.” <http://playbook.cio.gov/>

- 2. Library materials and services are discoverable outside the “walled garden” of the library, and are integrated and accessible to popular commercial search engines and other similar content discovery searches.**
  - 2.1. The library will seek and create opportunities to work with both commercial service providers and community partners to ensure that library resources and services are made available and promoted within relevant contexts outside the library’s own sites.
- 3. The Library’s catalog is the community’s catalog – community-produced content is made more widely available by being indexed in the Library’s catalog.**
  - 3.1. Freely-available content produced by Seattle artists, writers, and thought-leaders is considered for inclusion in the Library catalog to expand its discoverability (see, for example, the KEXP original live music project).
- 4. The library plays a leadership role in achieving fair and equitable eContent licensing models and availability of eContent from rights holders.**
  - 4.1. The library participates in national efforts to improve the availability and costs of eContent for lending
  - 4.2. The library makes product selection decisions based on a product’s compatibility with our usability, discoverability, and access standards in addition to the value of the product’s content.
- 5. Popular eContent (eBooks, audio books, magazines, downloadable/streaming music/video) is accessible with as few barriers-to-use as possible – i.e. separate logins, proprietary apps, device authorization.**
  - 5.1. The library will play a leadership role in national efforts to advocate for fewer restrictions on the circulation and accessibility of digital content.
  - 5.2. The library will prioritize selection decisions for eContent platforms based on the degree to which the platforms integrate with existing authentication systems and support flexible consumption of the material.
- 6. Library resources and services are cataloged, organized, presented, and marketed based on the information needs of the user not based on the library’s taxonomy or the taxonomy/branding of the vendor or product in question.**
  - 6.1. The library will adopt the perspective of the information-seeking patron in cataloging, organizing, presenting, and communicating about our resources. Our resources should answer the question “What do you want to do/learn/know today?” and not be presented as “Here is a list of all the resources we have for you.”
  - 6.2. The library will develop a marketing plan around each new major online resource it acquires. The plan will outline how the resource will be presented to patrons/audiences, how it will be supported by library staff, and what additional services (classes, programs, etc.) will be developed to encourage its use.

- 7. A patron's library experience is personalized - the library "learns" the patron's preferences and adapts discovery, access, and communications to suit the patron's needs.**
  - 7.1. The library will invest more in developing a more robust and personalized "front end" experience for patrons to anticipate and meet the needs of the patron at the point of interest.
  - 7.2. The library will develop more methods to present patrons with related content and recommendations to avoid "dead-ending" the user.
  - 7.3. The library will adopt both custom and commercial recommendations platforms and integrate them into our catalog products.
- 8. The library's chief value proposition to the community is the librarian. The librarian has more and better-integrated opportunities – both in person and online – to interact with and guide patrons in their discovery process.**
  - 8.1. The Library will invest in solutions that highlight and showcase the content, contributions, and recommendations of librarians and library staff in our catalog products.
  - 8.2. The Library will work to develop opportunities for librarians and other library staff to partner with individuals and organizations in efforts to co-create new services and deliver new value to the community.

## Strategies

The following are recommended initiatives and projects for the library to prioritize and develop over the next 2 years.

### 1. Implement and extend single-sign-on for library online resources.

*Library resources can be difficult to access. Single sign-on (SSO) is a method of access to multiple related but independent software systems whereby a user logs in once and gains access to all systems without being prompted to log in again at each of them.*<sup>9</sup>

- 1.1. Short term:** Implement BiblioCommons username logins via their Web Services wherever possible. This solution will not be possible for products whose authentication/login processes are not handled via EZproxy services (e.g. hoopla, Zinio, Lynda.com, etc.).
- 1.2. Long term:** Work with other libraries and library vendors to develop and implement a federated identity management solution so that library patrons can authenticate to library and library-contracted services with a single username and password that persists across products during a session. Reference projects for this include InCommon<sup>10</sup> and Shibboleth<sup>11</sup>.

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<sup>9</sup> [http://en.wikipedia.org/wiki/Single\\_sign-on](http://en.wikipedia.org/wiki/Single_sign-on)

<sup>10</sup> <http://www.incommonfederation.org/>

<sup>11</sup> <http://www.internet2.edu/products-services/trust-identity-middleware/shibboleth/>

## **2. Optimize library cataloging, categorizing, and indexing practices for search and discovery both inside and outside library online environments.**

*The high-quality online materials and resources the library provides to the community can be difficult to find. Patrons often do not start their searches with the library. Library catalog information should be optimized and made accessible to other search scopes outside the library's own domain.*

- 2.1. Implement the recommendations of the Search Optimized Cataloging Study to develop new cataloging/metadata procedures and access points for electronic resources that are not adequately represented in the catalog and/or Library website. Strive to increase the relevancy of online resources for appropriate keywords and search terms.
- 2.2. Explore the use of Sponsored Links and other commercial search engine services to promote library resources and services in environments where potential library patrons are already searching for information (e.g. Google, Bing, etc.).

## **3. Develop new partnerships that connect new audiences and communities to the benefits of library services, and that help shape the platform of technology services the library offers.**

- 3.1. Expand current partnership with the City of Seattle's Community Technology unit in their "Get Online" program to enhance community awareness of online access points and information assessment techniques.
- 3.2. Develop new partnerships with community organizations – especially those involved with lifelong learning and startup/small business development – to feature, promote, or even host library resources and services for their users and other information mediators in Seattle.
- 3.3. Build on existing connections with organizations such as GeekWire, CrossCut, the Seattle Collaborative Spaces Alliance, Ignite Seattle, MakerHaus, Metrix:CreateSpace, and others to co-create new experiences and services related to information and technology.

## **4. Advocate for greater reseller and publisher cooperation and options for public libraries**

*Licensing of online content for library lending continues to present challenges to both the user experience and the library's budget.*

- 4.1. Continue playing a leadership role in the ReadersFirst<sup>12</sup> coalition of public libraries to develop eContent product interoperability standards in partnership with the National Information Standards Organizations (NISO).
- 4.2. Participate in or develop collaborations and partnerships at the state and national levels to educate legislators and other influential parties about the challenges that eContent pricing and access models present for public libraries.

## **5. Develop a more unified discovery platform**

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<sup>12</sup> <http://www.readersfirst.org>

*Many library materials, services, programs, and online resources are not included in the library catalog's search scope, or are included in sub-optimal ways. The library catalog – and not individual vendor sites - should provide a comprehensive view into the library's full range of offerings and be the primary interface for patrons.*

- 5.1. Work with our discovery services provider and other interested libraries to expand the search scope of the library catalog to include item-level content from major eContent sources, databases, and other portfolios of digital material owned or licensed by the library (e.g. podcasts, blog posts, book reviews, etc.).
- 5.2. Develop the ability in the discovery tool to contextually highlight and promote featured content selected by librarians. Librarians can curate featured content and define the conditions under which featured content may be presented in a more prominent way.
- 5.3. Incorporate library news, events, and other related services into the search scope of the discovery platform.

**6. Expand the “Cataloging the Community” project to make more locally-produced original, free content discoverable to our patrons.**

*Seattle is home to hundreds of organizations that support and give voice to artists, writers, performers, musicians, and thought-leaders. The Library should expand the discoverability of the recordings, videos, and other products produced by Seattle's local arts and culture organizations.*

- 6.1. Work with partners in the arts and culture communities to identify high-value collections of free, original, and well-documented digital content for inclusion in the library catalog.

**7. Reinvent the way non-cataloged collections and online resources are classified and presented**

*The library holds many unique and valuable collections that remain uncataloged and otherwise inaccessible to online users. In addition, our online resources and databases are not organized or presented in a way that reveals their utility to patrons seeking information. The current organization assumes patrons already know what resource they need and does not focus on the patron's information seeking needs or goals.*

- 7.1. Restructure the way "Articles and Research" (AKA databases) are organized and presented to patrons.
  - Specifically, focus our architecture on engaging the patron's information needs and addressing the goal they are trying to achieve up-front (user-oriented), rather than present our digital resources by topic or alphabetical by product name (system orientation).
  - Base the new structure on modern research of information seeking theories and behaviors influenced by Internet search engines and other factors.
- 7.2. Catalog and digitize valuable non-cataloged collections (“vertical files”), such as the KOMO Radio Music Library, Seattle arts performance program books, press clippings, etc.

## 8. Develop the Library's services for mobile users

*Mobile platforms such as smartphones and tablets are increasingly becoming the primary interface whereby users interact with online services.*

- 8.1 Engage our partners to develop broader access to library resources via mobile devices, including research tools, special collections, and other forms of eContent.
- 8.2 Identify and develop unique library content that can be enriched and made more valuable via exposure on mobile platforms. Focus on projects that can both present information to patrons as well as engage patrons in contributing information that enhances library content.
- 8.3 Work with mobile partners to enhance the usability of mobile products and conform to the developing brand and usability standards being developed by Marketing & Online Services.
- 8.4 Make it easier for patrons to apply for and receive library accounts entirely online, including "e-accounts" to permit "digital only" access to library collections and online services.

## Learning, Entrepreneurship, and Creativity

### Overview

The Library provides access to hundreds of free computers, instructional programs, databases, and online learning resources. In addition, we have a skilled and energetic staff with expertise in subject areas and research methods that are of vital interest to the community.

During the recent economic downturn, the Library responded to the community's needs by expanding our job resource programs and services and re-committing to our role as a community resource to those with the greatest need for support and assistance. And by all accounts, those programs have been successful at meeting their goals. The 2013 Impact Survey demonstrated that over 50% of respondents used Library computer resources for employment-related activities – searching for jobs, applying for jobs, and developing new skills. Twenty-one percent of respondents reported they were granted an interview following use of Library services; and 12% reported they were hired for a new position.<sup>13</sup>

Now the overall economy is in recovery. Seattle has been branded as "the fastest-growing city in the U.S."<sup>14</sup> and Forbes has reported that Seattle is "the country's 'most consistent performer' in tech job growth."<sup>15</sup> However, many of these new opportunities are going to new arrivals recruited from out of town and by passing local residents. The Library can help ensure that more Seattle residents have an

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<sup>13</sup> Impact Survey 2013. Seattle Public Library results.

<http://infonet/Docs/Information%20Technology/IMPACT%20Survey/2013/Impact%20Survey%20Full%20Report%202013.pdf> (Internal library resource; available via request)

<sup>14</sup> Balk, Gene. "Census: Seattle is the faster-growing big city in the U.S." *The Seattle Times*. May 22, 2014.

<http://blogs.seattletimes.com/fyi-guy/2014/05/22/census-seattle-is-the-fastest-growing-big-city-in-the-u-s/>

<sup>15</sup> Kotkin, Joel. "The Best Cities for Jobs." *Forbes*. May 17, 2012.

<http://www.forbes.com/sites/joelkotkin/2012/05/17/the-best-cities-for-tech-jobs/>

opportunity to take part in this economic development. The Library has an opportunity to develop new services, reach new audiences – including lifelong learners, entrepreneurs, and working professionals – and have new impacts on our community especially in education, business, and creative pursuits.

The Technology and Access Advisory Committee considered the following questions related to Learning, Entrepreneurship, and Creativity.

- How can the Library provide additional technological capabilities that will allow patrons to learn and practice advanced digital skills like computer programming and application development?
- How can the Library better provide access to services and resources that can help patrons succeed with new technologies, participate in a culture of creativity, and meet their lifelong learning goals?
- How can we evolve the Library’s role in the community as a “third place” or collaborative hub for learners, entrepreneurs, professionals, and creators of digital content?

On June 12<sup>th</sup>, the Technology and Access Advisory Committee hosted a community forum specifically dedicated to the question of how the library can help contribute to the economic growth of Seattle, especially by engaging and directing services to startup entrepreneurs and small business owners.

## Current State

The Library currently provides a wide array of resources to support entrepreneurship and lifelong learning. These include programs, librarian resources and expertise, and online databases and classes. However, low awareness in the community of these resources combines with other structural barriers such as limited meeting and collaborative work spaces to limit the Library’s role in this area.

The Library has recently developed plans to offer media development and software development software to some library workstations to support all three areas as well as plans to allow more freedom of use on library computers, such as the ability to download and run additional software.

The Library has traditionally provided fewer resources for creative pursuits, but emerging technologies are offering more and better ways for the Library to support these endeavors as well.

## Challenges

- **Low awareness of full range of services, programs, and library digital resources.** As with other areas, the broader theme of awareness applies directly to the topic of learning, entrepreneurship and creativity. While the Library can and will do more, many of its resources to support educational and professional advancement are unknown or difficult to find.
- **Current Library spaces don’t support collaboration.** Much of the Library’s spaces are designed for individual work rather than collaboration.

- **Current Library spaces don't provide technical tools to support entrepreneurship.** Many small business, independent contractors and entrepreneurs don't have access to technology such as high quality video conferencing services.
- **Current Library spaces don't provide technical tools for creativity.**
- **Library computers are available for too limited of a time to fully support multimedia development or programming projects.**

## Vision

- The Library is the primary resource in Seattle for connecting people to free in-person and online learning opportunities.
- The Library is a primary resource for providing assistance and guidance in support of those enrolled in formal or informal learning programs.
- The Library plays an active role in supporting business and economic development in Seattle.
- The Library provides free collaborative spaces where individuals and groups can come together, work together, and produce together.

## Principles

- New and updated spaces should be flexible to support the range of activities individuals and groups use for learning, entrepreneurship and creativity.
- Library spaces should provide access to new and existing technologies to support a wide range of learning, entrepreneurship and creativity activities.
- The Library should have the ability to respond, adapt and integrate evolving technologies into Library resources.

## Strategies

### Learning

- The Library should prioritize the acquisition of high-quality online learning resources, especially in technology, job skills, and language development areas.
- The Library should develop and maintain a comprehensive catalog of free and low-cost instructional programs available in Seattle. Such a resource would be available to help library staff connect patrons to opportunities, but also help the Library better understand the availability of programs and services in the community and better understand where library instructional programs could help meet existing gaps in service.
- Via the proposed "Your Next Skill" service, the Library should develop a service in which library staff can engage in a guided discuss with patrons to assess the patron's learning style, goals, and help connect that patron to available library or community opportunities.
- The Library should explore developing the basic framework of "Your Next Skill" into an online tool that provides the means for a patron to assess their learning style, define learning goals, select appropriate learning opportunities, and track progress toward their goals. Such a platform

would function similarly to a “recommendations engine” for books and could be seen as an online “academic advisor” for informal education. The technology could be developed and shared with other libraries.

- The Library should explore partnerships with online learning platforms, such as Coursera, and universities in Washington State that offer online education (UW, WGU, etc.) and help provide the kinds of in-person learning environments, forums, and services that support students who are taking online courses.

## Entrepreneurship

- Prioritize the selection of high-quality business, technology, and marketing resources that can support the research and development needs of small-business owners and entrepreneurs.
- Reimagine library spaces and modify our space use policies (especially around study rooms and meeting rooms) to function more as collaborative spaces that support co-working.
- Invest in and promote the library in the community as a co-working space, with free access to WiFi, availability of printing, and meeting/collaboration spaces.
- Join and participate in the Seattle Collaborative Space Alliance (<http://collaborativespaces.org/>) to interact more with those involved in co-working and co-working spaces.
- Provide audio and video conferencing tools and other business-support technologies.
- Increase the Library’s capacity to answer business questions, assist with using business-related resources, and refer patrons to community organizations for assistance.
- Expand our involvement with community business support organizations such as washingtonCASH, SCORE, and the Office of Economic Development.

## Creativity

- Create Creativity Centers with an array of audio, video and other technology tools.
- Provide the instructional classes to support effective use of multimedia tools (i.e. script writing and basic cinematography for those making videos.)
- Explore the best market position for the Library with regard to MakerSpaces. Specifically, should the Library provide training for these tools, access to these technologies are both? Should these resources be provided in neighborhoods with less access?
- Deploy “Digital Media Creation” station with access to multimedia development tools.
- Remove the Library Online workstation management features to provide a more flexible and configurable computing experience to support creativity.

## Digital Inclusion and Literacy

### Overview

The Library has long been a critical service provider for digital access; we provide the means to connect people to digital information and perform critical life tasks using free public access computers and free Internet access.

Around 40% of library public access computer users are considered low income and have no alternative means of Internet access.<sup>16</sup> The library's role in providing basic access is still critical but Internet availability and Internet-connected device ownership rates continue to rise, even among low-income citizens.

The Technology and Access Advisory Committee considered the following questions related to Digital Inclusion and Literacy.

- How can the Library continue to bridge the "digital divide" as technologies and social needs continue to change?
- How can the Library re-examine the services and programs we offer to ensure that they are still relevant to meet today's digital inclusion and literacy needs?

## Current State

Currently, the Library provides over 800 desktop computers at 27 Library locations. In 2013, there were over 1.3 million internet sessions on public computers at the Library which was up 2% over 2012. Wi-Fi use is increasing throughout the system. New technologies are being introduced including tablets in the Children's area at the Central Library and Digital Media Workstations in selected locations.

In programming, the Library provides beginning digital literacy classes and online services ranging from learn-to-type software to Microsoft IT Academy. The Library's program investments have been more focused on initial literacy and access than on intermediate and advance classes, and while some recent efforts have brought digital literacy instruction outside of our buildings, efforts to reach new audiences have been limited. In addition, while the Library has successful partnerships with a number of other instructional organizations, we could do more to make the full continuum of literacy and fluency resources – both in and outside the Library – more available and easily discoverable by patrons.

## Challenges

- Awareness - Community knowledge of library digital literacy programs and services is insufficient, especially among low-income, immigrant, refugee, and special needs communities.
- Nimbleness – Existing staffing and resources limit our ability to take our classes outside of our buildings to the people who need them most.
- Flexibility - Adapting the range of technology resources – from access to fluency – to the needs of specific neighborhoods is required as our community experiences significant demographic shifts.
- Resources - Acquiring access to labs, software, and other resources is needed to deliver technology instruction outside of library facilities.
- Relevancy - Resources and expertise are required to expand our services to address the needs of community members who are already digitally literate.

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<sup>16</sup> *Ibid.* Impact Survey. 2013.

## Vision

- The Library is seen by Seattle residents as the community’s primary source of free technology access and instruction.
- The Library is recognized by mission-aligned organizations as a fundamental partner in developing and delivering digital literacy and fluency programming and resources.
- The Library provides technology instruction to community members who are most in need in locations that are accessible
- The Library delivers technology instruction that is relevant to community needs and interests. This includes aligning basic skills curriculum with real-life needs and interests, and developing intermediate or advanced classes that reflect emerging trends.

## Strategies

The Technology and Access Advisory Committee explored a model of digital skills development that goes beyond basic access and literacy into areas of “fluency” and eventually “expertise.” This model preserves our traditional role to provide access and to support basic skills acquisition, but it expands those efforts and acknowledges and adapts to the changing nature of access and technology use in Seattle.



The strategies recommended for “Digital Inclusion and Literacy” are presented according to this model.

**Access:** The Library already provides a considerable number of opportunities for access and serves an important and acknowledged role in the community as a key provider of digital inclusion services. We have opportunities to expand basic access services and provide access points in new environments.

- Provide basic access via newer form factors, such as tablet computers. Tablet computers should be provided for in-building use and supplied with apps that allow patrons to access library resources (such as eBooks, digital magazines, and streaming media) as well as apps that support productivity and information seeking.
- Explore the feasibility of a service model for circulating devices, such as laptops and tablets, via a traditional library-lending model. Such a program would have to account for resetting or restoring devices to a base image following use, and would have to allow for the potential for loss and damage to expensive equipment.
- Lend Internet connectivity via cellular Wi-Fi “hotspots.” These devices and services could provide a way for digitally excluded patrons to experience Internet service on a trial basis, fill a

gap in Internet service, or get online for the time necessary to complete a course, apply for job, or conduct research.

- Develop a more flexible policy with regard to workstation time limits – e.g. make it easier for patrons to apply for extensions of time when there are no competing reservations or waiting list, or look into setting weekly limits rather than daily limits.
- Promote equity of access. As the Library expands access through use of new digital devices and tools, options to ensure those tools are utilized by traditionally underserved communities should be explored to ensure high-needs residents benefit from expanded access.

**Literacy:** Access to technology does not automatically translate into knowing how to use these tools in effective ways that help people in their everyday lives. The Library’s existing technology skills instructional programs cover a number of topics related to developing basic technology and information literacy (e.g. the “how” and the “what.”) Teaching basic skills is still necessary for many segments of Seattle’s population. The City’s “Information Technology Adoption and Access” report finds that lack of basic skills is still a fundamental barrier to adoption for certain populations. For example:

Hispanic/Latino respondents who don’t use the Internet were more likely to say they don’t know how to use it (45%) than were Caucasian respondents (11%). African American and Asian/Pacific Islander respondents fell between these two.<sup>17</sup>

Furthermore, the 2014 Pew Research Center's *Internet & American Life Project* found that Internet use was correlated with age, education levels, household income, and disability status.<sup>18</sup> Adults over the age of 65 are the least likely to use the Internet, only 43% of people without high school diplomas use the Internet, and only 54% of people with a disability use the Internet (compared with 84% of adults without a disability). In most cases, *usability* and *relevance* were cited as larger barriers than cost or access.<sup>19</sup>

- Continue to provide instructional programming for basic technology skills targeted at communities with the most need and highest populations of digitally excluded individuals. Data from the City’s “Information Technology Adoption and Access” report as well as US Census data should be used to determine the areas and neighborhoods that would benefit most from these continued services.
- Collaborate with community partners to offer technology skills instruction in their facilities to expand our reach.
- Develop curriculum that is relevant to the needs and interests of targeted audiences. Develop the nimbleness to quickly adjust our instruction to respond to the audience. For example, if we teach a class to parents, introduce instruction on Seattle Public Schools’ “The Source

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<sup>17</sup> *Ibid.* City of Seattle.

<sup>18</sup> Internet User Demographics. (2014). Pew Research Center's *Internet & American Life Project*.

<http://www.pewinternet.org/data-trend/internet-use/latest-stats/>

<sup>19</sup> Zickuhr, K. (2013). *Who's not online and why*. Washington D.C. <http://pewinternet.org/Reports/2013/Non-internet-users.aspx>

- Offer to supplement other basic technology skills instructional programs in Seattle with topics of our expertise, such as information evaluation, research, and online safety.

**Fluency:** The concept of *fluency* represents a higher degree of familiarity, comfort, and knowledge about technology and information use than basic literacy. It refers to a skill set that empowers an individual to be effective with and curious about technology, to develop and design their own digital content, to build knowledge, and to communicate ideas in an increasingly connected digital world.

In the book *Digital Fluency: Building Success in the Digital Age*, the authors write:

A literate person is perfectly capable of using the tools. They know **how** to use them and **what** to do with them, but the outcome is less likely to match their intention. It is not until that person reaches a level of *fluency*, however, that they are comfortable with **when** to use the tools to achieve the desired outcome, and even **why** the tools they are using are likely to have the desired outcome at all.<sup>20</sup>

As the community's center for information, the Library should expand instruction and program content to include new focuses on helping patrons achieve *information fluency*. To be successful in this, the Library should expand staffing levels and staff competencies in areas related to digital literacy and fluency education.

The Library must also formally define the specific competencies and skills we consider to constitute "information fluency" and develop a strategy to ensure that our patrons have opportunities to acquire those competencies via library programs and services. Such topics and competencies should include:

- How to make responsible choices in accessing, using, and producing information and digital content
- How to analyze and assess the credibility and quality of information and content
- How to solve individual, family, and social problems using technology
- How to use technology to collaborate with others
- How to take social action by sharing information and knowledge
- How to participate effectively in online forums and communities
- How to produce compelling and persuasive digital content

This recommendation does not necessarily mean the Library should take on all instruction ourselves. The Library should approach the goal to raise the community's levels of digital fluency through community collaboration and co-creation. Effective strategies could include:

- Work with schools and other education-focused organizations to incorporate library-developed information literacy and fluency programming into existing courses and programs.

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<sup>20</sup> Briggs, Christian. Kevin Makice. "Digital Fluency: Building Success in the Digital Age." 2012. ISBN 0615642942.

- Partner with community media and technology companies to develop programs that focus on media and other forms of digital fluency.
- Partner with independent and community media organizations, such as low-power FM radio stations, PugetSoundOff, Seattle Community Media, and others to provide more exposure to their content and co-develop media instructional programs.
- Develop programs in partnership with local MakerSpaces and other centers for creativity to introduce more people to new technologies and remove barriers-to-entry to creative communities.
- Provide that single point of contact for patrons that has information about the full range of resources in the community.

Expertise: Library technology services – such as public access computing – and instructional programs should permit patrons to achieve higher levels of skill development than basic access and literacy. However, the library does not necessarily need to see itself as a provider of instructional services for patrons to achieve mastery

The Library should focus on developing partnerships and relationships with those who are “digital experts” to help us develop and design our instructional programs and emerging technology programs (see the Emerging Technologies for more details).

## Patron Engagement and Interaction

### Overview

Technology-enabled solutions can create more opportunities for patrons to go beyond simply visiting the library to having truly engaging experiences and ongoing involvement with the library, our staff, our services, and our community. Engaging, easily accessible interactive technologies can improve discovery of Library resources, encourage curiosity and serendipitous exploration, and connect patrons to Library programs and resources in more meaningful ways.

The Advisory Committee considered the question:

- How can the Library leverage and/or develop interactive digital platforms to highlight and add dimension to library content, collections, and patron experiences?

### What is Patron Engagement?

The Technology & Access Advisory Committee considered the following model of patron engagement in considering this topic.



Any potential user of the library can be said to occupy a position on the above spectrum. It should be the goal of a library service to move *some number of people some degree of distance* up the spectrum.

The *disconnected* patron has little to no awareness of library services. He may be a non-cardholder, or a cardholder who has long been inactive (more than 3 years). He does not receive library communications. If questioned about library services, he may not know we have e-books, computers, or that we no longer *shush* our patrons.

The *aware* patron is a non-user but someone has some knowledge of what's happening at the library. She may have friends who are active or engaged users. She may receive the library newsletter. She knows that libraries have e-books and computers. She may have been active recently (less than 3 years), but hasn't been in the library in the past year or two.

The *active* patron has used the library within the last year, and may, in fact, use the library quite regularly. He uses the catalog to place items on hold, he picks up books at his neighborhood branch, he does research using the library's databases, and he occasionally comes in to use a computer when his kids are hogging the PC at home. The active benefit receives the benefits that the public library has to offer.

The *engaged* patron both uses the library and *takes advantage of ways to contribute back to the library and the community*. She not only checks out books, but she rates and writes reviews of them in BiblioCommons. She offers feedback, suggestions, and comments via QuestionPoint. She attends community forums, and speaks up at library programs. She donates to the Friends or the Foundation, and volunteers her time. She comments on the library's Facebook page, retweets our tweets on Twitter, and shares our social media content via other channels.

The engaged patron benefits from library services but also *co-creates community value with the Library*.

## Current State

The Library has successfully incorporated interaction and engagement capabilities in our online catalog via features that support reviewing, commenting, tagging, and recommending items to other patrons. Librarians have also adopted those features to develop innovative interactive virtual services, such as the Your Next 5 reading recommendation service, which uses lists and messaging available via the catalog.

The Library has also been a national leader in using social media to interact and engage with our patrons. Members of the Social Media Team have been invited to speak at local and regional

conferences about our use of Facebook and Twitter, and have received national attention for our strategy to engage with the public rather than use the platforms to merely promote library programs and services. Our Facebook page has over 26,000 “likes” and our Twitter feed has over 10,000 followers. Effective use of social media has expanded the presence and recognition of the Library in our community, and allows us to “bring Library resources to where people are.”

The Library has tremendous opportunity to expand our online services and resources, and to take advantage of mobile platforms to provide patrons with new opportunities for interaction and engagement. Within Central, we have a number of technology focused art pieces, such as those by Tony Oursler and George Legrady, but these are passive pieces that don’t provide an opportunity for engagement nor do they reveal or highlight Library resources in ways that will encourage further exploration.

The Library is now developing and will soon implement an Interactive Visitor Center at Central Library, which is a first step in engaging patrons with the Library using new and interactive technologies. The Visitors Center which will allow visitors to explore a blend of passive and interactive touchscreens, social media feeds, and video and audio storytelling. This will present a rich, multi-layered approach to information about the Central Library building, the history of The Seattle Public Library and the people and city of Seattle.

## Challenges

- There is growing competition in the eContent market. Library patrons are consumers and, as such, have an ever growing choice of services for media consumption to choose from – including low-cost and even free options.
- Online services and resources are provided by an array of different vendors and platforms that patrons must learn to access and navigate.
- The Library’s traditional value proposition – free access to information – is no longer as compelling as it once was in this age of information abundance. Mere access is insufficient as a focus for libraries.
- Our historical commitment to patron privacy makes it difficult to offer personalized and “smart” online services to our patrons.
  - We cannot, for example, leverage a patron’s reading history to offer better reading recommendations.
  - We cannot easily conduct market analysis to learn how to better target our services geographically and demographically.
  - We have been reluctant to fully leverage the social aspect of our online services to more easily allow patrons to connect with others who might have similar interests.
- The Library has historically underinvested in online services and must re-invent itself via a strategic effort rather than a series of smaller, iterative changes. This challenge will initially delay our ability to be responsive and adapt quickly to new platforms and trends.

- The Library has not invested sufficiently in interactive platforms and engagement opportunities that would allow patrons to co-create content, metadata, and other information that may be of value to the community.

## Vision

- More of the Library's unique and valuable collections are accessible online via interactive and interpretive apps that provide a rich, fun, and educational experience for patrons.
- Library systems are "smart" and learn patrons' preferences to provide each patron with a more personalized experience and more useful online services.
- The Library remains committed to protecting the privacy of its users and to not sharing data for marketing purposes, but we offer patrons a choice of how much data they are willing to allow the library to use and retain in order to provide more personalized services.
- The Library uses interactive technologies to enable our patrons to co-create unique content that becomes part of the library's collection and accessible to the community.

## Principles

- Online services are designed to be updated continuously, not via periodic major redesigns.
- New interactive tools need to be easily accessible near the entrance to the library – not buried in the stacks
- New interactive tools need to be intuitive and easy to use
- Be experimental – risk and accept failure as we explore best ways to engage patrons
- Invest in projects that are flexible and easily updated - don't invest in something that will soon be out of date
- Develop ways for patrons to interact creatively with our buildings
- Where possible, marry analog and digital technologies to create engagement activities (e.g. paper and pen along with art wall technology)

## Strategies

### Enhance the Library Experience

- Develop a more retail-influenced presentation of books, materials, digital products, and other library resources. The Library should focus resources and staff development on a system-wide strategy for "in-library experiences" and determine how we can create a more interactive and engaging environment – both technology-enhanced and otherwise – for patrons in all library buildings.
- Integrate e-Collection or other digital displays in the print stacks via embedded interactive touchscreens or tablets.
- Use technology such as Google Indoor Maps or Point Inside to enhance wayfinding and offer opportunities for patrons to do spatial augmentation and annotation via mobile devices.

- Develop an app for a graphical tour of Central Library rather than rely on audio-only cell phone tours.
- Use real-time video and audio streaming technologies to deliver exclusive library programming and event content (such as author readings) to other library locations or over the Internet.
- Use video and audio to raise awareness about library services in multiple languages via a series of videos recorded with actors explaining "the basics" of libraries and how to access our services in all of our core languages and sign language. The videos can be delivered via digital kiosks or online. They can include a graphical menu system that allows a patron to access the information they want in their language or ask additional questions.

### Enhance the Mobile Environment

- Develop apps (for in-library kiosks and mobile platforms) that explore high-interest Special Collection items or present interpretive "deep dives" into significant historical documents or sets of images and other materials.
- Use geocaching in the Library as way to engage patrons with collections and programming
- Explore using geotagging collections so that wherever you go in the city you can access a Library resource through your mobile device.

### Enhance the Catalog

- Enhance the library catalog to include more opportunities for patrons to interact with each other, rate and review content and contributions ("liking"), annotate our content, and to specify interests and preferences.
- Enhance the library catalog to highlight and feature library staff contributions, create content (such as lists) that is targeted to specific patrons, and develop custom digital displays.
- Enhance the library catalog to offer additional and more targeted ways for patrons to request and receive notifications about new content availability, library programs, and other topics.
- Develop the concept of "community credits" to serve as incentives for patrons to interact on the catalog platform. Define and deliver "rewards" to high earners of community credits, and develop a recognition system for "power users."

### Enhance the Collection via Community

- Provide opportunities for patrons to co-create unique local content via kiosks or booths where, for example, patrons can record information or answer questions about their reading habits and preferences or about their library experiences. Information can be used to create a living multimedia document about the library's impact on the community.
- Develop or utilize platforms that allow crowdsourcing of tasks – such as transcription of text or application of metadata – to library materials – especially Special Collections.
- Develop an interactive app similar to a "build your own story" experience. Provide various choices for story components (characters, relationships, conflicts, plot details, endings, etc.) and allow patrons to select the base elements for their story, name the characters, etc. Once

selections are made, an animated version of their story is generated and plays. Their unique story can be saved, shared, and assembled by the Library into a patron-generated portfolio of unique content.

- Provide virtual “gallery space” for local artists, schoolchildren, and others to submit their creations for digital display at libraries and online. Contributions can be collected and curated by the Library and would become part of the library’s collection.

## Emerging Technologies

Over the last 20 years, the public library has played an important role in providing access to technology resources and services in the community. As technology has become more pervasive and ubiquitous, the library – as the *community’s information center* – must re-think and re-position its role in the community and develop a strategy to ensure that its technology-oriented services remain aligned with the needs of its constituents. A critical area to investigate involves so-called “emerging technologies.”

An emerging technology is a *field of technology that broaches new territory in some significant way, with new technological developments.*<sup>21</sup> Though the Advisory Committee did not formally focus on the role of the library with regard to emerging technologies, the topic was raised and discussed periodically throughout our process.

## Current State

When the Internet was considered an “emerging technology,” many public libraries recognized its potential impact on the way individuals interacted with information and that there was a need for libraries to encourage, promote, and provide access to the “information superhighway.” Public libraries were identified in 1995 by the US Department of Commerce as being a vital partner in addressing disparities in access to computer and Internet technologies.<sup>22</sup> Libraries developed and adopted programming to assist patrons in using and understanding the new medium.

During The Seattle Public Library’s “Libraries for All” project, the Library designed or remodeled its libraries to devote more space to desktop computers and independent mobile device users, and invested significantly in both wired and wireless networking. Public computing has grown into a core service area at The Seattle Public Library and in public libraries in general.

Beyond this basic level of technology access, the Library has been slow to adopt or investigate emerging technologies. Over the last decade in particular, budget constraints and concerns about the sustainability and supportability of additional technology offerings have been primary concerns. Furthermore, Seattle’s relatively high level of technology access and adoption has caused the library’s role as a provider of access to emerging technology to remain somewhat unclear.

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<sup>21</sup> [http://en.wikipedia.org/wiki/Emerging\\_technologies](http://en.wikipedia.org/wiki/Emerging_technologies)

<sup>22</sup> U.S. Department of Commerce. 1995. Falling through the net: A survey of the “have nots” in rural and urban America. Washington, DC: U.S. Dept. of Commerce, National Telecommunications and Information Administration.

## Vision

**The Library needs to firmly define its role in the community as not just a provider of access to established technologies, but as an institution that introduces people to new technologies, helps people understand the role emerging technologies can play in their lives, and provides platforms and access to expertise to foster discussion and debate about the social and cultural impacts of emerging technologies.**

Such an approach remains true to the library's institutional alignment with the discipline of information science, our focus on encouraging social and civic engagement, and our traditional role as advisors and educators about the effective use of information and information resources.

With that role in mind, the Library should establish a service strategy, build resource capacity, and develop programs and services around *emerging technologies and emerging technology issues*. We need to get beyond the limited concept of the "technology petting zoo," and seek to provide not just basic access to new gadgets but to develop and offer (and even co-create with our patrons) programs and services that explore broader contexts about emerging technologies and their impacts on information use and social responsibility.

In order to be effective in this role, the Library needs to be nimble and able to develop and offer this expanded level of programming to quickly respond to emerging technologies and technology issues.

## Strategies

To implement the sorts of initiatives recommended here and to develop the capacity for the sort of nimble program development and delivery this area requires, the Library should:

- Establish an "emerging technology fund" that is reserved for more spontaneous and topical programming development and the acquisition of emerging technology devices, software, etc.
  - The specific uses of this fund would not be known *a priori* but would be managed and allocated according to the general principles and goals outlined above – to introduce patrons to emerging technologies and emerging technology issues in a robust, holistic, multi-faceted manner.
- Assign a team – perhaps the Emerging Technology Special Interest Group – to be responsible for developing and delivering the "Emerging Technology" series and for allocating the fund, under the direction of the Director of Information Technology.
- Establish a network of technology experts, speakers, and lecturers who can be called upon at relatively short notice to help develop and deliver programs as the opportunity arises.
- Schedule regular emerging technology forums in which a variety of topics can be covered and in which participants have an opportunity to help the library shape and develop an agenda and focus on certain areas.

## Examples of Emerging Technology Programs

To further illustrate this point, here are some examples of emerging technologies and emerging technology issues from the last year:

### **The Snowden Case**

The leaking by contractor Edward Snowden of classified documents related to the NSA's global telecommunications surveillance program had implications for personal privacy, information security, and intellectual freedom. The Library has obvious connections to these issues and could have sponsored, for example, a topical panel discussion, lecture, and/or series of programs that helped explain the personal and societal implications of the Snowden documents to our patrons. Related materials could have been acquired and highlighted via physical and virtual displays.

### **The Heartbleed Bug**

The serious vulnerability in OpenSSL software affected the personal and organizational security of almost everyone who uses the Internet. There was significant media coverage about the vulnerability and it became difficult for the layperson to ascertain what was hype and what was a serious concern. Furthermore, many individuals did not understand what mitigating actions to take, and it is likely that the exposure undermined some users' confidence in the Internet – perhaps those who were already vulnerable or already predisposed to mistrust computers. The Library could have responded by quickly convening a series of public programs, information guides, and other communications to provide an unbiased and balanced assessment of the impact of the Heartbleed bug, help educate people about password management, online safety, etc.

### **Google Glass**

Google Glass is a wearable computer with an optical head-mounted display. It displays smartphone-like information using a hands-free format that is designed to resemble eyeglasses. Glass has received considerable media attention since its announcement in 2013, and has sparked criticism and debate on issues such as privacy, surveillance, social isolation, and accessibility. Glass is most definitely considered an “emerging technology” and could be further classified as a “disruptive technology.”

The library could develop a related series of library programs and services to provide hands-on access to Google Glass, enlist experts and speakers from the community to host forums about the social and cultural issues that Glass has introduced, and help educate patrons about the potential impacts on the way that this technology can affect their ability to access and use information.

## Open Data Services

The City of Seattle has released hundreds of datasets related to city business, education, finance, land use, permitting, public safety, and transportation via its [data.seattle.gov](http://data.seattle.gov) site. In addition, there are dozens of other “open data” sets available from county, state, and federal governments. Governmental open data projects, like Seattle's, are intended to support government openness and help citizens tell

stories, solve problems, and achieve a better understanding of government decision-making. Several major US cities have similar programs, and some include partnerships with public libraries.<sup>23</sup>

## Vision

**The Library can and should play a critical role in helping Seattle residents access, understand, and use government data – city data as well as data from other “open” repositories (e.g. the US Census, the US Geological Survey, etc.).** In our role as the community’s information experts, the Library should partner with the City of Seattle to develop a series of programs and services related to open data with goals to expand the community’s awareness of the resource, empower citizens to use the data to better interact with local government, and help develop new ways of using the government’s data to understand or even help solve community dilemmas.<sup>24</sup>

Since much of the data available from the City of Seattle is geographically significant and contains geolocation information, this initiative can also be aligned to the new directions being proposed for the Library’s Maps department.

## Strategies

The library should:

- Invest in staff training to develop in-house expertise in working with open data, large datasets, and data exploration platforms, such as the City’s Socrata product.
- Develop a partnership with the City’s open data program to expand the Library’s role with regard to municipal open data and to advise on discoverability, future directions, and build-outs.
- Sponsor or deliver a series of programs and events aimed at engaging and helping educate Seattle residents about the availability and use of open data from local, state, and federal governments.
- Examine the feasibility and desirability of developing a Center of Excellence in the Library around data use and analysis as a general service to the public.

## Conclusion

There is tremendous opportunity for the Library to redefine its role in Seattle as the community's center for information – the city’s primary resource for information access, information literacy and fluency development, access to and support with informal learning opportunities, participation in economic development activities, and a place for collaboration and creative pursuits.

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<sup>23</sup> An excellent general guide to open data concepts and purposes is available from the Stewards of Change Institute at <http://www.stewardsofchange.com/what-we-do/Documents/Open%20Data%20Handbook%20-%20WEB.pdf>

<sup>24</sup> See also “The Responsive City” for more examples of how city leaders can enable citizens to leverage open data. <http://datasmart.ash.harvard.edu/responsivecity>

Talking about “technology” as a distinct topic or discipline is limiting. This report treats technology as a means to achieve innovative ends for our community in a variety of important and emerging areas.

David Brock, a thought-leader in business and innovation writes:

It’s cool to show mobile devices, display screens, wearables, and other sorts of things. They are things we can embrace and start to use, then subsequently blame, when they don’t produce results.... Innovation is not constrained by technology. Innovation looks far beyond the technology. Innovation can be in business models, business process, in human engagement. There are many innovations we confuse with being ‘technology innovation,’ where they are really innovations of another kind.<sup>25</sup>

Our patrons don't come to the Library to "use technology." They come to participate in their community – to research topics, find information and answers, perform tasks, acquire knowledge, learn new skills, communicate with family and friends, and entertain themselves. Computer technology is definitely a critical means to those ends. Technology can enable improved discovery of our resources and services, and can enable new ways for patrons to achieve their goals and to interact and engage with the library, with each other, and with the larger world. But it cannot move the Library to a new future alone.

Innovation requires fundamental changes in our operational models and processes, and the way we engage with our patrons. The report highlighted some of the way in which technology can be leveraged to accomplish those goals.

Library staff are an even more critical enabler and deliverer of these recommended strategies and vision for the Library. Fulfillment of the vision and strategies outlined here will require new investments and/or significant re-allocation of existing positions and capacities – not just “technology.” The Library must reimagine our staffing and service models, and invest in staff resources and in developing new competencies and levels of expertise to make the proposed future state a reality.

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<sup>25</sup> Brock, David. “When Will We Stop Talking About the Technology?” <http://partnersinexcellenceblog.com/when-will-we-stop-talking-about-the-technology/>



# The Seattle Public Library

## Appendix A: Strategies/Action Plan

### KEY

ON – Ongoing (work is currently happening)

ST – short term (2014-2015)

LT – long term (2014-2019)

IT - Information Technology division

PS – Public Services department

C&A – Collections & Access department

MOS – Marketing & Online Services division

ADM – Administrative Services (Business Office/ Facilities / Capital Projects) division

Note: The involvement of Human Resources, the City Librarian’s Office, Communications, Community Partnerships, and other divisions and departments is critical and is implied throughout all of the following even if those divisions are not called out specifically as “leads.”

### Digital Discovery & Access

	Strategy	Timing	Leads
1.	Implement and extend single-sign-on for library online resources.		
1.1	Implement BiblioCommons username logins via their Web Services wherever possible.	ST	IT
1.2	Work with other libraries and library vendors to develop and implement a federated identity management solution so that library patrons can authenticate to library and library-contracted services with a single username and password.	LT	IT
2.	Optimize library cataloging, categorizing, and indexing practices for search and discovery		
2.1	Implement the recommendations of the Search Optimized Cataloging Study	ST	C&A / IT
2.2	Explore the use of Sponsored Links and other commercial search engine services to promote library resources and services in environments where potential library patrons are already searching for information (e.g. Google, Bing, etc.).	ST	MOS
3.	Develop new partnerships that connect new audiences and communities to the benefits of library services, and that help shape the platform of technology services the library offers		

3.1	Expand current partnership with the City of Seattle’s Community Technology unit in their “Get Online” program to enhance community awareness of online access points and information assessment techniques.	ST	PS
3.2	Develop new partnerships that connect new audiences and communities to the benefits of library services, and that help shape the platform of technology services the library offers by developing new partnerships with community organizations – especially those involved with lifelong learning and startup/small business development – to feature, promote, or even host library resources and services for their users and other information mediators in Seattle.	LT	PS
3.3	Build on existing connections with organizations such as GeekWire, CrossCut, the Seattle Collaborative Spaces Alliance, Ignite Seattle, MakerHaus, Metrix:CreateSpace, and others to co-create new experiences and services related to information and technology	ST	PS
4.	Advocate for greater reseller and publisher cooperation and options for public libraries		
4.1	Continue playing a leadership role in the ReadersFirst coalition of public libraries to develop eContent product interoperability standards in partnership with the National Information Standards Organizations (NISO).	ST	IT / C&A
4.2	Participate in or develop collaborations and partnerships at the state and national levels to educate legislators and other influential parties about the challenges that eContent pricing and access models present for public libraries.	ST	IT / C&A
5	Develop a more unified discovery platform		
5.1	Work with our discovery services provider and other interested libraries to expand the search scope of the library catalog to include item-level content from major eContent sources, databases, and other portfolios of digital material owned or licensed by the library (e.g. podcasts, blog posts, book reviews, etc.).	ON	IT
5.2	Develop the ability in the discovery tool to contextually highlight and promote featured content selected by librarians. Librarians can curate featured content and define the conditions under which featured content may be presented in a more prominent way.	ON	IT
5.3	Incorporate library news, events, and other related services into the search scope of the discovery platform.	ON	IT
6.	Expand the “Cataloging the Community” project		
6.1	Work with partners in the arts and culture communities to identify high-value collections of free, original, and well-documented digital content for inclusion in the library catalog.		

7.	Reinvent the way non-cataloged online resources and products are classified and presented		
7.1	Restructure the way "Articles and Research" (AKA databases) are organized and presented to patrons.	ST	PS / C&A
7.2	Catalog and digitize valuable non-cataloged collections ("vertical files"), such as the KOMO Radio Music Library, Seattle arts performance program books, press clippings, etc.	LT	PS / C&A
8.	<b>Develop the Library's services for mobile users</b>		
8.1	Engage our partners to develop broader access to library resources via mobile devices, including research tools, special collections, and other forms of eContent.	ON	IT
8.2	Identify and develop unique library content that can be enriched and made more valuable via exposure on mobile platforms. Focus on projects that can both present information to patrons as well as engage patrons in contributing information that enhances library content.	LT	IT / MOS
8.3	Work with mobile partners to enhance the usability of mobile products and conform to the developing brand and usability standards being developed by Marketing & Online Services.	LT	MOS / IT
8.4	Make it easier for patrons to apply for and receive library accounts entirely online, including "e-accounts" to permit "digital only" access to library collections and online services.	ON	C&A / IT

## Learning, Entrepreneurship, and Creativity

	Strategy	Timing	Responsible
	<b>Learning</b>		
1.	The Library should prioritize the acquisition of high-quality online learning resources, especially in technology, job skills, and language development areas.	ST	C&A
2.	The Library should develop and maintain a comprehensive catalog of free and low-cost instructional programs available in Seattle. Such a resource would be available to help library staff connect patrons to opportunities, but also help the Library better understand the availability of programs and services in the community and better understand where library instructional programs could help meet existing gaps in service.	ST	PS
3.	Via the proposed "Your Next Skill" service, the Library should develop a service in which library staff can engage in a guided discuss with patrons to assess the patron's learning style, goals, and help connect that patron to available library or community opportunities.	ST	PS
4.	The Library should explore developing the basic framework of "Your Next Skill" into an online tool that provides the means for a patron to assess their learning style, define learning goals, select appropriate	LT	PS / IT

	learning opportunities, and track progress toward their goals. Such a platform would function similarly to a “recommendations engine” for books and could be seen as an online “academic advisor” for informal education. The technology could be developed and shared with other libraries.		
5.	The Library should explore partnerships with online learning platforms, such as Coursera, and universities in Washington State that offer online education (UW, WGU, etc.) and help provide the kinds of in-person learning environments, forums, and services that support students who are taking online courses.	LT	PS
	<b>Entrepreneurship</b>		
6.	Prioritize the selection of high-quality business, technology, and marketing resources that can support the research and development needs of small-business owners and entrepreneurs.	ST	C&A
7.	Re-imagine library spaces and modify our space use policies (especially around study rooms and meeting rooms) to function as collaborative spaces that support co-working.	ON	PS
8.	Promote the library in the community as a co-working space, with free access to WiFi, availability of printing, and meeting/collaboration spaces.	ST	MOS
9.	Join and participate in the Seattle Collaborative Space Alliance ( <a href="http://collaborativespaces.org/">http://collaborativespaces.org/</a> ) to interact more with those involved in co-working and co-working spaces.	ST	PS
10.	Provide audio and video conferencing tools and other business-support technologies.	LT	IT
11.	Increase the Library’s capacity to answer business questions, assist with using business-related resources, and refer patrons to community organizations for assistance.	LT	PS
12.	Expand our involvement with community business support organizations such as washingtonCASH, SCORE, and the Office of Economic Development.	ST	PS
	<b>Creativity</b>		
13.	Create a creativity center with an array of audio,video and other technology tools	LT	IT / ADM / PS
14.	Provide the instructional classes to support effective use of the tools (i.e. script writing and basic cinematography for those making videos.)	LT	PS
15.	Explore the best market position for the Library with regard to MakerSpaces.	ON	PS
16.	Deploy “Digital Media Creation” station with access to multimedia development tools.	ON	IT
17.	Remove the Library Online workstation management features to provide a more flexible and configurable computing experience to support creativity.	ON	IT

## Digital Inclusion and Literacy

	Strategy	Timing	Responsible
	<b>Access</b>		
1.	The Library should provide basic access via newer form factors, such as tablet computers.	ST	PS / IT
2.	The Library should explore the feasibility of a service model for circulating devices, such as laptops and tablets, via a traditional library-lending model.	ST	PS / C&A / IT
3.	The Library should lend Internet connectivity via cellular Wi-Fi “hotspots.” These devices and services could provide a way for digitally excluded patrons to experience Internet service on a trial basis, fill a gap in Internet service, or get online for a the time necessary to complete a course, apply for job, or conduct research.	ST	C&A / IT
	<b>Literacy</b>		
4.	Continue to develop and provide instructional programming for basic technology skills targeted at communities with the most need and highest populations of digitally excluded individuals.	ON	PS
5.	Expand delivery of basic technology skills and competency programs in conjunction with our community partners and their facilities to expand our reach	ST	PS
6.	Offer to supplement other basic technology skills instructional programs in Seattle with topics of our expertise, such as information evaluation, research, and online safety.	ST	PS
	<b>Fluency</b>		
7.	Work with schools and other education-focused organizations to incorporate library-developed information literacy and fluency programming into existing courses and programs.	LT	PS
8.	Partner with media and technology companies to develop programs that focus on media and other forms of digital fluency.	LT	PS
9.	Develop programs in partnership with local MakerSpaces and other centers for creativity to introduce more people to new technologies and remove barriers-to-entry to creative communities.	ON	PS
	<b>Expertise</b>		
10.	Develop partnerships and relationships with those who are “digital experts” to help us develop and design our instructional programs and emerging technology programs	ST	PS

## Patron Engagement and Interaction

	Strategy	Timing	Responsible
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<b>Enhance the Library Experience</b>			
1.	Develop a more retail-influenced presentation of books, materials, digital products, and other library resources. The Library should focus resources and staff development on a system-wide strategy for “in-library experiences” and determine how we can create a more interactive and engaging environment – both technology-enhanced and otherwise – for patrons in all library buildings.	LT	PS / MOS / ADM
2.	Integrate e-Collection or other digital displays in the print stacks via embedded interactive touchscreens or tablets.	LT	C&A / MOS / ADM
3.	Use technology such as Google Indoor Maps or Point Inside to enhance wayfinding and offer opportunities for patrons to do spatial augmentation and annotation via mobile devices.	ST	IT / MOS
4.	Develop an app for a graphical tour of Central Library rather than rely on audio-only cell phone tours.	LT	MOS
5.	Use real-time video and audio streaming technologies to deliver exclusive library programming and event content (such as author readings) to other library locations or over the Internet.	LT	PS / Events
6.	Use video and audio to raise awareness about library services in multiple languages via a series of videos recorded with actors explaining "the basics" of libraries and how to access our services in all of our core languages and sign language. The videos can be delivered via digital kiosks or online. They can include a graphical menu system that allows a patron to access the information they want in their language or ask additional questions.	LT	MOS
<b>Enhance the Mobile Environment</b>			
7.	Develop apps (for in-library kiosks and mobile platforms) that explore high-interest Special Collection items or present interpretive “deep dives” into significant historical documents or sets of images and other materials.	LT	PS / MOS
8.	Use geocaching in the Library as way to engage patrons with collections and programming	ST	PS
9.	Explore using geotagging collections so that wherever you go in the city you can access a Library resource through your mobile device.	LT	PS / C&A / MOS
<b>Enhance the Catalog</b>			
10.	Enhance the library catalog to include more opportunities for patrons to interact with each other, rate and review content and contributions (“liking”), annotate our content, and to specify interests and preferences.	ON	IT
11.	Enhance the library catalog to highlight and feature library staff contributions, create content (such as lists) that is targeted to specific patrons, and develop custom digital displays.	ON	IT
12.	Enhance the library catalog to offer additional and more targeted ways for patrons to request and receive notifications about new content availability, library programs, and other topics.	ON	IT
13.	Develop the concept of “community credits” to serve as incentives for patrons to interact on the catalog platform. Define and deliver “rewards” to high earners of community credits, and develop a recognition system for “power users.”	LT	IT / MOS
<b>Enhance the Collection via Community</b>			

14.	Provide opportunities for patrons to co-create unique local content via kiosks or booths where, for example, patrons can record information or answer questions about their reading habits and preferences or about their library experiences. Information can be used to create a living multimedia document about the library's impact on the community.	LT	MOS
15.	Develop or utilize platforms that allow crowdsourcing of tasks – such as transcription of text or application of metadata – to library materials – especially Special Collections.	LT	C&A / IT
16.	Develop an interactive app similar to a “build your own story” experience. Provide various choices for story components (characters, relationships, conflicts, plot details, endings, etc.) and allow patrons to select the base elements for their story, name the characters, etc. Once selections are made, an animated version of their story is generated and plays. Their unique story can be saved, shared, and assembled by the Library into a patron-generated portfolio of unique content.	LT	MOS
17.	Provide virtual “gallery space” for local artists, schoolchildren, and others to submit their creations for digital display at libraries and online. Contributions can be collected and curated by the Library and would become part of the library's collection.	LT	MOS

## Emerging Technologies

	Strategy	Timing	Responsible
1.	Establish an “emerging technology fund” that is reserved for more spontaneous and topical programming development and the acquisition of emerging technology devices, software, etc.	ST	PS / IT
2.	Assign a team – perhaps the Emerging Technology Special Interest Group – to be responsible for developing and delivering the “Emerging Technology” series and for allocating the fund, under the direction of the Director of Information Technology.	ST	PS / IT
3.	Establish a network of technology experts, speakers, and lecturers who can be called upon at relatively short notice to help develop and deliver programs as the opportunity arises.	ST	PS
4.	Schedule regular emerging technology forums in which a variety of topics can be covered and in which participants have an opportunity to help the library shape and develop an agenda and focus on certain areas.	ST	PS

## Open Data Services

	Strategy	Timing	Responsible
1.	Invest in staff training to develop in-house expertise in working with large datasets and data exploration	LT	PS

	platforms, such as the City's Socrata product.		
2.	Develop a partnership with the City's open data program to expand the Library's role with regard to municipal open data and to advise on discoverability, future directions, and build-outs.	ST	PS
3.	Sponsor or deliver a series of programs and events aimed at engaging and helping educate Seattle residents about the availability and use of open data from local, state, and federal governments.	ST	PS
4.	Examine the feasibility and desirability of developing a Center of Excellence in the Library around data use and analysis as a general service to the public.	LT	PS



# The Seattle Public Library

## Appendix B: Advisory Committee Members

Jim Loter, Chair	The Seattle Public Library	Director of Information Technology
Hayden Bass	The Seattle Public Library	Teen Services Librarian
Shawn Delaney	The Seattle Public Library	Manager, Technology Infrastructure and Support
Kristi England	The Seattle Public Library Board of Governors (Senior Director, APCO Worldwide)	Member of SPL Board of Governors
Adam Feldstein	Moz	Chief Product Officer
Laura Fletcher	washingtonCASH	Director of Financial Services
Chase Franklin		Startup Advisor & Investor
Andrew Gordon	Evans School of Public Administration, University of Washington	Professor Emeritus
Stephen Halsey	The Seattle Public Library	Director of Marketing & Online Services
Andrew Harbison	The Seattle Public Library	Assistant Director, Collections & Access Services
Kreg Hasegawa	The Seattle Public Library	Adult Services Librarian
Emily Henlein	hibu	Global Director of User Experience
Jay Lyman	The Seattle Public Library	Adult Services Librarian
Annie Searle	The Seattle Public Library Foundation (Principal, Annie Searle & Associates, LLC)	Member, Board of Directors
Dave Valencia	The Seattle Public Library	Regional Manager
Stacey Wedlake	US Impact Survey, UW iSchool	Research Assistant
Valerie Wonder	The Seattle Public Library	Managing Librarian, Community Engagement
Jennifer Yeung	The Seattle Public Library	Adult Services Librarian
Rona Zevin	Friends of the Library	President