Wichita Public Library

Technology Plan

2017-2019

WICHITA PUBLIC
LIBRARY

Endorsed by the Library Board April 18, 2017

Wichita Public Library Technology Plan 2017-2019

Contents

Introduction

As the Library moves towards a time of change and construction, it faces the challenge of an increasingly mobile based culture and demand for access to newer technologies. At the same time, its mission to serve a segment of the population caught in a digital divide continues. In addition, an aging branch system with budget and staffing constraints contribute to a challenging evolution of technology programs and services.

With the completion of the Advanced Learning Library, the Library will have a state-of-the art facility to focus technology access and programing. The building presents unique opportunities to showcase staff and community talents and explore the possibilities of technology in libraries. However, the Library must continue to provide technology services to all parts of the community, at both library and non-library locations. In addition, the Library will need to coordinate with community partners, appropriate City departments, and others organizations to promote and maximize attendance as new programs, services, and partnerships are created.

Further, the digital divide that libraries have bridged for decades still exists. Customers may be more mobile, have greater access to tablet technology, and have more basic computer skills than previous generations, but the divide has simply shifted. Customers of all demographics will still need access to advanced technologies and software and the Library must continue its role as a connector and supporter of technology to disadvantaged populations.

This plan puts forth a variety of high level goals for which the Library should aim, in a variety of key target areas, designed to address the most immediate needs of the Library while expanding its services to meet the increasing demands of customers.

Mission Statements

WPL Mission Statement
The Wichita Public Library provides collections and services that inform, entertain and enrich the quality of life in Wichita. (WPL, PHI-002)

WPL Vision Statement
The Wichita Public Library will be the community's preferred knowledge resource, providing inviting libraries, superb collections and excellent service. (WPL, PHI-003)

Technology Vision Statement
The Library will be Wichita's primary access point to unfettered information, lifelong learning and early literacy development, and the exploration of ideas through the innovative use of technology and digital resources.

Current Technology Assessment

The Library has made great strides over the past two years to bring all of its major software systems into current release status. The Polaris Integrated Library System (ILS) was upgraded, a new ecommerce solution was installed and updated to keep Payment Card Industry (PCI) standard compatibility, staff are moving toward a cloud based storage system, Microsoft's OneDrive, and much needed maintenance was performed across all technologies.

The Library's largest challenge is transforming to meet the demands of a more mobile technology based culture. Upgrading to a mobile friendly environment requires upgrading Wi-Fi and networking infrastructure and internet bandwidth speeds to meet customer demands. Aging, inadequate equipment with too few connections must be upgraded, branches do not have enough electric outlets to meet customer device charging needs, and internet speeds are slow. Customers are also demanding a greater variety of software on public computers and the ability to adequately run software and apps on personal devices.

Further, service models are becoming more mobile to reflect customer demands and space issues. Polaris is moving to a mobile, cloud-based software as the future model for its ILS. The change will allow staff to access an almost fully functional ILS software from any device. However, it will also add an additional burden on Wi-Fi systems and internet broadband.

City IT is working on new standards for networking equipment and plans to incorporate this equipment into the IT support payment model, which should make upgrading easier in the future. Likewise, the ability to leverage Universal Services funding to help make new equipment less expensive, puts the Library in a good position for upgrades. The bigger challenge will be for any equipment that requires rewiring or adding electrical outlets for customers to easily charge devices. In addition, ever increasing demand for internet broadband will be costly.

The Library is well positioned to meet these challenges.

See *Library Technology Asset Report December 2016* for lists of supported and unsupported technology.

Technology Focus Areas

Although the pace of technology, with future partnerships and funding sources and new service demands creating sudden shifts in technology focus, makes long term planning fluid, there are a few key areas in which the Library should remain focused. These areas represent a mix of current service priorities, library industry trends, customer requests, and technology deficits. The following section includes technology focus areas, rationales, high-level goals for each area, and potential action plans that should move the Library closer to each goal. The list is meant to be targeted, not comprehensive.

I.   *Community Engagement*

As the number of entertainment and educational opportunities increase, libraries are finding it more challenging to continue functioning as the Third Place for communities, or that place outside of work and home that is important for civil society, democracy, civic engagement, and establishing feelings of a sense of place. Libraries must rework infrastructure and service models to create new communal and collaborative spaces and engage customers outside of traditional library locations. Further, libraries must continue to support the diverse communities they serve. In the last two years several library awards, including Library of the Year, were given for programs that placed library services in non-traditional locations and roles such as social workers, technology trainers/educators, and meeting facilitators.

While the idea of community outreach isn't new, more libraries are looking toward outreach librarianship, in which librarians deliver traditional library services outside library facilities. Pew Research Center reports that 7% of those 16 and older have been visited in some way by a librarian in the past 12 months, up from 4% in the past year. (Anderson, 3-4)

Further, customers expect libraries to offer digital tools and technology training, inside and outside the library. The most recent Pew Research Center study shows that 80% of Americans strongly believe that libraries should have programs to teach digital skills and 50% believe libraries should have advanced technology tools, such as 3D printers and scanners. In addition, almost a quarter were willing to give up print and materials space to get technology access. (Anderson, 5-6)

- The Library should focus on providing technology that allows movement beyond its current physical spaces and allow staff to move into all parts of the City and its communities.

- The Library should focus on providing high quality technology training at the introductory level and partnering to provide advanced training.

Goal I: The Library has the necessary technology to support staff outreach efforts to provide library services while in non-library locations

Action Plan
2017:   Evaluate Polaris Web Application versus Polaris Client on tablets.
         Implement mobile ILS and reference services solution at Central Library
         Comprehensive review of staff technology capabilities on mobile platforms

2018:   Review mobile internet technology options for staff
         Acquire ability for staff to access internet via mobile devices in all parts of the City

2019:   Expand mobile librarian footprint across the City, focusing on targeted demographics for technology need

Goal II: Customers attend Library technology training classes at non-library locations

Action Plan

2017: Create a phased program to offer introductory technology training classes using the mobile labs in non-library locations, focused on targeted demographics

2018: Expand introductory training classes to additional locations
Review potential training opportunities on more advanced technologies and train staff/partners and prepare curriculum

2019: Offer advanced technology training opportunities at non-library location using mobile labs that have been modified to include necessary equipment

Goal III: Customers access high quality training classes on new, emerging technologies and software within Library facilities

Action Plan

2017: Evaluate customer technology needs and prioritize new technologies and software for creation of new technology courses.

2018: Using the new facilities at the Advanced Learning Library, begin offering new courses on advanced software and technologies
Work on developing partnerships to use existing facilities to create training opportunities

2019: Create a phased project to allow completion of industry certifications in a software development field by customers using only Library resources, i.e. Treehouse with assistance from partners

Goal IV: Customers access Library technologies regardless of disability or impairment

Action Plan

2017: Ensure library locations continues to meet current 2016 Edge Benchmark 11 criteria for accommodating users with disabilities.
- At least one public terminal with assistive technology that enable use by persons with visual Impairments
- The Library has at least one workstation in each location that can accommodate a wheelchair or mobility vehicle

2018: Ensure at least one public terminal at each location can be converted with assistive technology to facilitate usage by people with visual, motor, and dexterity impairments

2019: Create or partner for annual staff training on recognizing and serving customers with disabilities

Goal V: Customer are able to get immediate technology assistance from any staff member in public service areas

Action Plan

2017: Implement a revised staff core technology competency curriculum that expands the general technology of all staff and advanced technology areas for public services staff

2018: Determine appropriate hardware and software most needed by customers and train staff to allow for expansion of book a librarian subject offerings

2019: Evaluate and update staff core technology competencies

II.   *Staff Service Mobility*

In the Advanced Learning Library, staff will not be anchored to fixed service points. Reference, Teen, and to some extent, Circulation and Children's staff, will work on a roving reference model. Roving reference (or mobile reference or roving librarians) has become the service model of choice for new and remodeled libraries as it removes large, fixed service points and allows staff to engage customers anywhere, providing quicker, more immediate assistance. For the service model to work effectively, staff will need access to all library systems, both staff and public, through mobile devices, creating a cyber security challenge. Therefore, this service model necessitates a highly mobile and flexible ILS capability and wireless infrastructure.

Further, there is a concerted effort on the part of the Library's ILS to move toward a web-based model for future software development. Given the overall industry interest in and development of cloud-based business models, the Library is better positioned by making the transition before being forced. While these software systems are still being refined, they are well established and well out of 'beta' stage.

- The Library should focus on improving mobile hardware and software for staff usage to provide better and more flexible customer service.

Goal I: Staff can perform all necessary ILS functionality and reference services away from a fixed service point using mobile devices

Action Plan

2017: Evaluate Polaris Web Application versus Polaris Client on tablets.
Create phased project for mobile ILS and reference services solution at Central Library in preparation for move to ALL

2018: Evaluate mobile ILS solution at ALL to ensure service model is viable

Evaluate branch locations for expansion of roving reference model or incorporation of mobile ILS solution into workflows

2019:   Create phased project for roving reference or ILS mobile solution at branch locations

Goal II: Staff have access to the most current hardware and software to perform their duties

Action Plan

2017:   Update Polaris ILS at least twice during the year
Update Envisionware STS at least once during the year
Upgrade Summer Reading software
Update staff software as required

2018:   Update Polaris ILS at least twice during the year
Update Envisionware STS at least once during the year
Update Summer Reading software at least once during the year
Evaluate Evanced Spaces (meeting room software)
Update staff software as required
Update staff and customer computers to Office 2016

2019:   Update Polaris ILS at least twice during the year
Update Envisionware STS at least once during the year
Update Summer Reading software at least once during the year
Update meeting room software at least once during the year
Update staff software as required
Update staff and customer computers to Windows 10

III.   *Expanding Mobile Experiences and Services*

In a recent study of device ownership and usage in America, 68% of U.S. adults own a smartphone of some kind, up from 35% in 2011. Likewise, tablet computer ownership increased to 45% among adults. Within certain demographics, smartphone ownership is almost ubiquitous with 86% of those ages 18-29 having a smartphone, 83% of those ages 30-49, and 87% of those living in households earning $75,000 and up annually. Most importantly, more than half of most demographic groups in the study owned a smartphone, showing that smartphone ownership is no longer about status, but found at all education and socioeconomic demographics. In addition, the average American owns 3.64 mobile devices. (Pew, 2015) All these devices walk into Library facilities with the customer, resulting in an increasing need for improved Wi-Fi infrastructure and increased bandwidth speeds.

As customer mobile device ownership and usage has increased, demand at Library locations have outgrown current Wi-Fi network and electrical infrastructure. Also, physical space available for technological expansion for both staff and customers is limited. In order to increase mobile services or

create potential new technology spaces, while maintaining collection spaces, innovative approaches will be needed. Desks and tables may need to be reconfigured or eliminated, fixed computer terminals may need replaced with laptops or tablets, or alternate service model strategies may be needed. Improving mobile capabilities will better position the Library to make changes at current locations with fixed budgets and limited ability to remodel.

Likewise, the Advanced Learning Library will act as an incubator for new ideas and technology services. The Library must be prepared to take advantage of these new technology partnerships and opportunities created through the Advanced Learning Library and expand them into appropriate branch locations. Therefore, it will be necessary to have an adequate infrastructure at branches to support this expansion of new services and technology opportunities.

In addition to customer culture becoming more mobile centric, the demand for self-service options at Library locations has increased. Customers want to print, scan, fax, checkout, and use other services without staff intervention. Likewise, staffing pressures and limitations at most locations make self-service options desirable as it alleviates the need for staff intervention.

Further, City IT is in the middle of reevaluating all City networking equipment, with the goal of improving and future proofing most systems as network demands City wide increase. As IT begins upgrading equipment, it will be important to work with them to insure adequate service delivery.

- The Library should focus on improving Wi-Fi at all locations to help alleviate issues with increase Wi-Fi demand and usage

- The Library should work with Public Works and other City departments to address inadequate support structure for customer wireless devices. Customers need access to more electrical outlets, charging stations, and space to use their devices.

- The Library should focus on providing self-service and mobile friendly options when available.

Goal I: Customers and staff experience superior mobile device environments within Library facilities.

Action Plan

2017:   Coordinate with City IT as they develop their new networking equipment specifications to create adequate Wi-Fi coverage and networking infrastructure needs

2018:   Upgrade wireless infrastructure, WAPs, firewalls, etc. per City's new specs based on location prioritization
Evaluate locations for removal/restructuring of staff areas to take advantage of wireless capabilities

2019:   Complete upgrade of wireless infrastructure at all locations

Goal II: Customers access the fastest 'melt your iPad' public internet service in Wichita

Action Plan

2017:   Evaluate broadband proposal to determine flexibility of fiber installation for branch locations. Based on broadband proposal, implement improved high-speed internet solution. Minimum goal of double the bandwidth at all Library locations

2018:   Monitor the microwave high-speed internet phased project, which, if works as planned, should provide faster than fiber internet to select City locations

2019:   Evaluate ways to leverage high speed internet speeds at all locations

Goal III: Library technology services have self-service capability

Action Plan

2017:   Work with City IT to ensure new copier model includes adequate capabilities for faxing, coping, and scanning and can be configured for usage by customers rather than staff intervention

2018:   Create a phased project for self-service copy and print release stations at the ALL
        Begin expanding computer reservation stations into targeted locations based on customer service goals and available space

2019:   Expand self-service copy and print stations to all appropriate locations
        Review library locations for expansion of self-checkout

Goal IV: Customers have access to a modern, mobile friendly library website

Action Plan

2017:   Complete and implement a review of library website
        Research preliminary designs for update website

2018:   Update website to maintain the Library's virtual branch as an effective information and resource tool and ensure usability on all customer devices and preferred internet browsers

2019:   Complete and implement a review of library website

IV. Technology Partnerships

Even with the physical capabilities of the Advanced Learning Library (ALL), constraints on staff availability and experience will limit the amount of new technology services and training the Library can offer. Partnership with local and regional organizations focused on technology will be key to allow the Library to offer the level of technology programs desired. However, the technology spaces in the ALL have been designed for flexibility of usage and should accommodate a range of rotating technology programs. The ALL should be an ideal location to bring in partners to highlight their expertise in our technology spaces.

- The Library should focus on expanding technology partnerships to utilize the advanced spaces in the ALL.

- The Library should focus on providing access to community technology resources through membership in the Library.

Goal I: Community organizations seek out the Library as a partner for technology programming

Action Plan

2017:   Identify key community organizations whose missions align with the Library's technology vision and begin discussing how they could use the new ALL facilities.

2018:   Create a series of programs with partners for the opening of the ALL which highlights its technology spaces and technology possibilities

2019:   Create phased project that moves technology programs created at the ALL to appropriate branch locations to expand ALL resources into the community

Goal II: Customers have access to Wichita's technology resources through their membership with the Library

2017:   Identify key community technology organizations whose missions align with the Library's technology vision and who have limited access facilities

2018:   Explore how to create partnerships which allow access to the resources of technology focused organization with a WPL library card

2019:   Create a phased project, similar to book-a-librarian that allows customers to get one- on-one training on advanced hardware or software, i.e. CAD software, app development, 3D printers, building a computer, etc., from partners

V.   *Evaluation of Services*

The prevalence of technology throughout library services creates a necessity to quantify its importance to customers and measure the Library's success in meeting customer demand. The Library should continue using strong analytical tools to evaluate and measure the Library's technology footprint in relation to customer demand and against its peer institutions. The current industry leading tools in technology assessment are the Edge Assessment tool and Project Outcome.

The Library used the Edge Assessment survey tool to compare its technology services against peer institution in 2014 and 2016. The Library remains in the 80th percentile of peer institutions for overall technology services. However, the Library's highest score, 80%, is for those technologies that are considered simple and have low cost. The Library only reaches the 53rd percentile for technologies that are more costly or difficult to implement which corresponds to resource deficits. It also scored moderately well, 67%, with technologies that meet community needs. Therefore, the greatest area for improvement are in developing technologies associated with community needs and those that take greater effort, but are more innovative and will put the library at the center of digital inclusion in the community. (Edge, 2-3)

One of the tools offered by Project Outcome is a Technology Impact Survey, which allows the Library to conduct a customer survey asking how they do or do not use Library technology. The survey has been effective in identifying weaknesses or confirming improvements. The Impact Survey will continue to be a vital tool that the Library will use to ensure that it is meeting the technology needs of customers.

- The Library should focus on finding and using tools to identify and measure it effectiveness in providing technology to the community.

Goal 1: Exceed an Edge benchmark score of 80% in all categories of service

Action Plan

2017:   Review 2016 Edge Assessment for specific improvement areas, prioritizing those with the highest potential for growth
Create action plan to improve items identified in 2016 Edge Review
Take the 2017 Edge Assessment and compare to 2016 action plan

2018:   Review 2017 Edge Assessment for specific improvement areas, prioritizing those with the highest potential for growth
Create action plan to improve items identified in 2017 Edge Review
Take the 2018 Edge Assessment and compare to 2017 action plan

2019:   Review 2018 Edge Assessment for specific improvement areas, prioritizing those with the highest potential for growth
Create action plan to improve items identified in 2018 Edge Review

Take the 2019 Edge Assessment and compare to 2018 action plan

Goal II: The Library has an accurate assessment of library customer's technology needs and wants

Action Plan

2017:   Perform a Technology Impact Survey
        Review technology survey and submit report on opportunities to improve

2018:   Perform a Technology Impact Survey
        Review technology survey and submit report on opportunities to improve

2019:   Perform a Technology Impact Survey
        Review technology survey and submit report on opportunities to improve

VI.   *Unsupported Technology Strategy*

The Library has an aging supply of technology that is not maintained through City IT support. These technologies represent a growing portion of technology that supports primary goals, such as technology training, which may not be sustainable without transferring at some point to IT support.

See **Library Technology Asset Report December 2016** for lists of unsupported technology.

- The Library should focus on identifying all technologies not supported by IT, create a replacement strategy, and if possible move key technologies to support.

Goal I: The Library has an accurate picture of the replacement and maintenance cost for unsupported technologies

Action Plan

2017:   Create a comprehensive inventory dashboard on the Portal of all unsupported equipment

2018:   Create a replacement strategy document with projected timeline for replacement of unsupported technology

2019:   Begin switching key technologies, mobile labs, tablets, etc. to IT support to better manage them

APPENDIX A: BUDGET

KEY: CE (Community Engagement); SM (Staff Service Mobility); EM (Expanding Mobile Experience and Services); ES (Evaluation of Services)

Item	Goal(s) Using Item	2017	2018	2019	Funding Source
Polaris Web Application Licensing	**CE Goal I, SM Goal 1,**	$ 27,100	$ 4,200	$ 5,000	City General Fund
Mobile Devices for Staff Central/ALL (iPads or Android Tablets)	**CE Goal I**, **CE Goal II, CE Goal V, SM Goal I,**	$ 800	$ 1,700	$ 0	Foundation Technology Fund
Mobile Devices for Staff Branches (iPads or Android Tablets)	**CE Goal I**, **CE Goal V, SM Goal I,**	$ 3,200	$ 3,200	$ 0	Foundation Technology Fund
Mobile Hot Spot (supports 15 devices)	**CE Goal I, CE Goal II,**	$ 0	$ 480	$ 1,060	SCKLS Grant
Assistive Technology	**CE Goal IV,**	$ 2,500	$11,200	$ 50,000	City Program Option and/or Special Grant
Evanced Spaces	**SM Goal II,**	$ 0	$15,500	$ 3,300	City Program Option and/or Special Grant
Branch Internet Service	**EM Goal II**	$100,000	$100,000	$100,000	State Aid and/or SCKLS Grant
Self Service Printing/Copy Station	**EM Goal III**	$ 0	$11,200	$3,900	City Program Option and/or Special Grant
Edge Benchmark	**ES Goal I**	$ 0	$2,500	$2,800	SCKLS Grant
Impact Survey	**ES Goal II**	$300	$330	$360	SCKLS Grant
New Software Licensing	**CE Goal II, CE Goal III,**	$10,000	$12,000	$15,000	TBD

**Budget assumes no Universal Services (E-rate) funding*

Fund	2017	2018	2019	Total
City General Fund	$ 27,100	$ 4,200	$ 5,000	$ 36,300
State Aid/SCKLS Grant-in-Aid Funding	$ 100,300	$ 103,310	$ 104,220	$ 307,830
City Program Option or Special Grant	$ 2,500	$ 37,900	$ 57,200	$ 97,600
Foundation Technology Fund	$ 4,000	$ 4,900	$ 0	$ 8,900
TBD	$ 10,000	$ 12,000	$ 15,000	$ 37,000
Totals	**$ 143,900**	**$ 162,310**	**$ 181,420**	**$ 487,630**

ENDNOTES

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