Executive Summary of Grant Proposal: Assistive Technology Workstations for the Jefferson County Public Library System

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LIB 4040: Management of Information Organizations

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January 30, 2022

Description of the Location

Jefferson County is located in the Front Range Urban Corridor of Colorado. (Office of Management and Budget, 2013) It encapsulates several suburbs and towns near Denver, including Arvada, Bow Mar, Edgewater, Golden, Lakeside, Lakewood, Littleton, Morrison, Mountain View, Superior, Westminster, and Wheat Ridge, as well as numerous unincorporated communities. In addition to cities and towns, Jefferson County is also home to portions of Pike, Roosevelt, and Arapahoe national forests, as well as Golden Gate Canyon State Park and Chatfield State Recreation Area. (Jefferson County, CO, 2017) The 2020 Census reports the population of Jefferson County, CO as 582,010 people. The ethnic makeup of Jefferson County's residents is 77.7% non-Hispanic White, 12.6 % Hispanic White, 2.6% Asian, 1.1% Black, 2.3% Biracial, and 1.7% Other. The median household income in Jefferson County was $90,040, while 7.1 percent of people lived under the poverty rate. The median property value was $461, 200 with a 69% homeownership rate. (Data USA, 2022)

Description of Library System

Jefferson County Public Library (JCPL) system consists of ten main branches as well as one bookmobile and four remote hold lockers. In 2019, 9,907,552 items were borrowed from JCPL. There were 2,613,399 total visitors, 49% of households had at least one active (used in the last 12 months) cardholder and 274, 669 people attended a program. The total revenues for JCPL in 2020 were $46,744,393. Employee salaries and benefits made up the largest budgeting expense, totaling $17,594,630. JCPL spent an additional $7,354,512 on books and other materials. Other operating expenditures equaled $6,639,650. The budget is divided into 45% employee salaries and benefits, 19% library books and materials, 19% other operating expenditures, 15% capital projects, and 4% financing and debt service.

In the JCPL 2020-2025 Strategic Plan Snapshot, executive director Donna Walker, and Board Chair Charles Naumer discuss the library's goals for their five-year plan. The strategic priorities include reaching more people, creating libraries for the future, and growing sustainably. The JCPL initiatives include building an inclusive community and embracing innovation and change. (Jefferson County Public Library, 2021)

Statement of National Need

To mark the 20th anniversary of the passing of the Americans with Disabilities Act (ADA), a study comparing the results of a 1996 Nelson survey on library services for users with disabilities with results from a similar survey in 2010 was conducted. Participants assessed various aspects of academic libraries including accessibility and adaptive technology. Despite the passage of a 1998 congressional amendment to Section 508 of the Rehabilitation Act of 1973 that required that both the federal government and organizations working with it need to have accessible digital resources, the results showed that libraries were still addressing the issues of accessibility and adaptive technology reactively, and not proactively. (Willis, 2012)

According to the latest data from the U.S. Census Bureau, 41.1 million or 12.7% of all civilian noninstitutionalized population are users with a disability in the United States as of 2019. Of the six disabilities that the U.S. Census Bureau identifies, our adaptive technology station focuses on addressing the following four types (US Census Bureau, 2021):

- Hearing difficulties that account for 11.5 million or 3.6%
- Vision difficulties that account for 7.5 million or 2.3%
- Cognitive difficulties that account for 16 million or 5.2%
- Ambulatory difficulties that account for 21 million or 6.9%.

In addition, according to 2017-2018 data from the National Center for Education Statistics nearly 7 million disabled students in the U.S. make up 14% of national enrollment in public schools. (Schaeffer, 2020), JCPL is seeking funding to increase our information accessibility capacities and capabilities for users with disabilities.

IMLS Goals, Funding, and Project

Goals

Since the introduction of the World Wide Web there has been an increase in both the types of information users can access and how they can access it. Due to this increase in information technology, libraries are devoting more and more of their budgets and infrastructure to electronic resources. (Jaeger et al., 2012). The implementation of assistive technology workstations is guided by our library's commitment to being inclusive of all members of the community, increasing access to information resources, and promoting lifelong learning.

The Belmar branch of JCPL, located in Lakewood, CO, underwent a remodel in 2020-2022 that included the installation of a new Assistive Technology Workstation (ATW). Based on the Belmar branch's successful implementation of the ATW, JCPL has recently implemented ADA transition plans at its remaining main branches and is seeking funding for the necessary technology and the implementation of ATWs at the remaining 9 branches: Arvada, Columbine, Conifer, Edgewater, Evergreen, Golden, Lakewood, Standley Lake, and Wheat Ridge. (Jefferson County Public Library, 2019)

Our library's commitment to being inclusive of all members of the community, increasing access to information resources, and promoting lifelong learning align with IMLS's strategic goals of promoting lifelong learning and increasing public access. This project will help

ensure that users with disabilities, an identified underserved community, have equal access to the library's electronic resources for their own self-directed edification. The selection of technology seeks to meet the needs of all the four user types identified. In addition to access to electronic information resources, these assistive technology workstations will enable users to access assistive services and produce their own content.

Return on Investment

The funding for this implementation project will involve a one-time investment for the purchasing of hardware and software, the assessment of ATWs, and the authoring of informative material related to the implementation of ATWs. Demonstrating the return on investment for this project will be accomplished using several metrics:

- User counts

- Electronic resource usage data

- User interviews, focus groups, and eSurveys

The quantitative data collected will justify the implementation of this project and future implementations of ATWs in public libraries. Qualitative data gathered from users will help guide the creation of best practices related to the selection and implementation of future assistive technologies, staff training, and community outreach.

Funding

For this project, we are seeking funding via an implementation grant from the Laura Bush 21st Century Librarian Program. This selection was made based on the alignment of the goals of our ATW implementation project and the following goals and associated objectives of the Laura Bush 21st Century Librarian Program (Institute of Museum and Library Services, 2021):

- Goal 1: Recruit, train, develop, and retain a diverse workforce of library professionals.

o Objective 1.3: Develop training for library and archives workforces to support families, groups, and individuals of diverse cultural and socioeconomic backgrounds and needs.

- Goal 2: Develop faculty, library, and archives leaders by increasing the institutional capacity of libraries, archives, and graduate programs related to library and information science.

o Objective 2.1: Support the preparation and implementation of large-scale organizational change addressing diversity, equity, and inclusion.

- Goal 3: Enhance the training and professional development of the library and archival workforce to meet the needs of their communities.

o Objective 3.4: Support training of the library and archival workforce to advance digital inclusion for the benefit of community members.

Project Outline

Goals

The project, which consists of adding an Assistive Technology Workstations to 9 main branches in the JCPL system is in adherence with the IMLS strategic goal of increasing public access for those community members who are most likely to encounter barriers to their access. By investing in the technology acquisitions and structural modifications needed to remove those barriers to access, the libraries will become more usable for all community members. In 2019, JCPL conducted a community input initiative and found that the community wants, "Equitable access and educational opportunities, cultural, linguistic, responsive, materials and resources reflective of multiple lenses of diversity" (Jefferson County Public Library, 2019). JCPL installed an ATW at the Belmar branch to help meet the goals of inclusiveness and the promotion

of lifelong learning for all members of the community. Adding ATWs in the other nine branches in the JCPL system would further support this goal by increasing resources for users with disabilities across the entire county. Additionally, the data collected from the implementation of this project will contribute to the creation of training and informational materials that may be used to benefit the implementation of ATWs in public library systems nationwide.

Activities

After looking at available data and listening to the community, we have determined that installing Assistive Technology Workstations in all library branches within the JCPL system will be beneficial for the community. Our first step is to acquire funding to cover the cost of the ATWs. Once funding has been obtained, we will move on to step two, which is purchasing the assistive technology hardware and software. The library will purchase hardware and software from a prescribed list based on user feedback collected from the Belmar ATW. Step three consists of having the equipment installed and ensuring that everything is working properly. In step four, library staff will undergo training to learn how to use the ATW and how to assist patrons with using it. In step five, all branches will begin offering the ATWs as a service for users with disabilities. Finally, JCPL will publish an analysis of the qualitative and quantitative data collected related to the ATW and provide suggested best practices for the implementation of ATWs in all public libraries.

Audience

The target audience will be users with disabilities in Jefferson County, Colorado. According to the CDC, 26% of American adults live with some form of disability. 13.7% have limited mobility. 5.9% have deafness or serious difficulty with their hearing. 4.6% are blind or have very limited sight (CDC, 2020). These statistics show that disabilities are prevalent among

people of all demographics and geographic locations. According to the Colorado Commission

for the Deaf, Hard of Hearing, and Deafblind, an estimated 758,636 Coloradans are deaf or hard

of hearing. This does not include those who are blind or visually impaired. (CCDHH, 2021)

Disabilities increase significantly as the population ages. 34.6% of Coloradans aged 65 or older

have a disability. The Colorado Commission for the Deaf Hard of Hearing, and Deafblind reports

that the entire state lacks the auxiliary services required to facilitate effective

communication. (CDC 2020). The statistics show that there is a substantial amount of the

population who would benefit from the implementation of ATWs in their local libraries.

Budget

Assistive Technology Workstation: Supplies, Materials, and Equipment		
Item	**Justification**	**Cost**
Dell Inspiron 27 7000 All-in-One (Dell, 2022)	Increase accessibility for users with disabilities.	$1,100.00
Large Print Keyboard (Dell, 2022)	Increase accessibility for users with visual and ambulatory disabilities.	$20.00
Trackball (Kensington, 2022)	Increase accessibility for users with ambulatory disabilities.	$110.00
Headphones with microphone and active noise cancelation (Jabra, 2022)	Increase accessibility for users with hearing, visual, cognitive and ambulatory disabilities.	$350.00
48" Motorized Adjustable Desk (VersaDesk, 2022)	Increase accessibility for users with visual and ambulatory disabilities.	$825.00
ZoomText Fusion Professional: • Screen Magnification • Screen Enhancements • Screen Reader (JAWS) (Freedom Scientific, 2022)	Increase accessibility for users with hearing, visual, cognitive and ambulatory disabilities.	$2,250.00
Dragon Professional Individual • Speech to Text (Nuance Communications, 2022)	Increase accessibility for users with visual, cognitive and ambulatory disabilities.	$500.00

Assistive Technology Workstation: Supplies, Materials, and Equipment		
Document Camera (IPEVO, 2022)	Increase accessibility for users with visual and ambulatory disabilities.	$340.00
	Total per workstation**: $5,495.00**	
	Total for 9 workstations: $49,455.00	
User Focus Groups (Rupert et al., 2017)	Collection of assessment data to provide meaningful and practical feedback for justification of ATW project, the improvement of staff training, and to identify best practices in the implementation of ATWs. • $2576/in-person group • 4 in-person group sessions	$10,304.00
Promotional Materials	Inform all patrons of the ATW implementation project. • $0.50/ per color copy • 1000 copies	$500.00
Survey Materials	Collect user feedback. • $0.10/ per black & white copy • 200 copies	$20.00
Workstation: Supplies, Materials, and Equipment Total Cost:		$60,279.00

Assistive Technology Workstation: Subawards and Contracts		
Item	**Justification**	**Cost**
Staff Training (Statista, 2022)	Provide training for the library staff to gain proficiency with the new assistive technologies to foster inclusion for the benefit of community members. • $1,896/hour • 16 hours of training for 18 employees	$29,904.00

Assistive Technology Workstation: Cost Totals	
Item	**Cost**
Supplies, Materials, and Equipment	$60,279.00
Subawards and Contracts	$29,904.00
Estimated Total Cost:	**$90,183.00**

Deliverable & Communication Plan

This project aims to provide users with disabilities with unbarred access to the technology they need to use at all branches of JCPL to the fullest. JCPL promises to deliver on this goal by installing ATWs equipped with the hardware and software to meet the needs of these patrons, in all 10 main branches. Along with the items listed in the budget, the library will ensure the ATWs receive proper maintenance, and that all staff are fully trained on how to use it and how to assist users with disabilities.

Communication with the public on this project will be paramount so that patrons know that this technology will be available. Clarity on the implementation process will be the best course of action so that patrons are made aware of how long the project will take to complete and that they can go to staff with any questions, as they will all be properly trained on the technology. Monthly status reports will be made in the form of email blasts and website postings. The IT staff in charge of acquiring and installing the technology will also stay in regular communication with the rest of staff about training sessions and will be made available to receive any feedback and questions. Following the launch of the ATWs, user feedback will also be acquired via focus groups and eSurveys to ascertain how well the ATWs are being received, if there are any issues or questions surrounding how to use the ATWs, and what improvements could be implemented.

Upon completion of the assessment period, focus group responses will need to be converted to a standard metric before summative assessment can occur. A report with recommendations related to the summative assessment will be provided to JCPL upon the completion of this project. Please see the plan below for a general outline of the project's implementation.

Schedule

- **Monthly:** Status reports via emails and postings to both staff and patrons.

- **January 1, 2023:** Inform patrons of the plan to build and implement the Assistive Technology Workstations and give a general timeline of implementation. Staff involved with the project meet to discuss the plan.

- **January 10, 2023:** Flyers advertising the project created and displayed as well as signage around the areas where ATWs will reside.

- **January 30, 2023:** All technology and materials purchased.

- **February 1, 2023 - April 30, 2023 (depending on when tech arrives):** Installation of technology and materials.

- **May 30, 2023 -** All preliminary testing of technology completed by IT.

- **June 1, 2023:** Meeting with IT and library staff to discuss the technology and introduce training sessions.

- **June 15, 2023:** Staff training begins.

- **September 30, 2023:** Majority of training completed.

- **October 15, 2023:** Any leftover training needed by staff to be completed. Feedback and questions addressed. Prepare for the launch of the ATWs. Patrons notified.

- **October 30, 2023:** Final meeting between staff and IT before launch.

- **November 1, 2023:** Launch of ATWs.

- **November 10, 2023:** Focus group #1 with patrons to discuss the usability of ATWs and any issues encountered.

- **November 15, 2023:** Focus group #2

- **November 20, 2023:** Focus group #3

  November 30, 2023: Focus group #4

- **December 1, 2023:** Staff meeting to discuss focus group feedback and steps further.

- **December 7-21, 2023:** Authoring and delivery of feedback data report.

- **January 1, 2024:** First round of maintenance complete and all patron issues resolved.

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