Final Paper: Makerspace at the La Veta Public Library

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Introduction

<u>La Veta Public Library-History and Population Demographic</u>

The La Veta Public Library in La Veta, Colorado first opened its doors as a guest of the local jail house on June 5, 1974. The citizens of the city described the inmates as "the best read prisoners," (LVPL.org). In September of 1975, they separated from the jail and opened their doors at their current location on Main Street. In the fall of 2021, the library opened up a seasonal branch in the nearby unincorporated community of Cuchara. In 2020, La Veta proper had a population of 805 people, (WorldPopulationReview.com). Huerfano County, the county in which both La Veta and Cuchara reside, had an estimated population of 6,927 and an average growth rate of 3.68%.

Catalog and User Demographics

In order to fulfill their goals of lifelong learning and provide for the whole community, the library pledges to "assemble and organize services, collections of materials, and other resources to meet the information needs and interests of the people it serves and to provide free access to diverse ideas in a variety of formats," (BestPublicLibraries.org). Their catalog consists of 10,695 volumes of books, movies, comics, music, and movies, as well as e-resource databases such as Kanopy and HOOPLA. It circulates around 42,559 items annually. The La Veta Public Library shares its material and resources with the Cuchara Library. The library district is a smaller-scale and services, as it services a relatively modest population. Approximately 1,271 of the county's residents are active card holders, (LibraryTechnology.org). As of 2022, the current staff size is 6 people, (ZoomInfo.com), including one Head Librarian, a Library Assistant, and 4 clerks.

Services and Existing Technology

The library offers a wide range of both unique and classic services to its patrons. Both the main branch and the Cuchara branch have free Wi-Fi services and a diverse catalog of materials, from books to movies. Patrons can also take advantage of the library's Chromebook rental system, which gives users who may not have access to technology at home more opportunities for learning and stronger technology literacy for the community. The library hosts movie matinees and fun seasonal rentals, such as state park passes, snow shoes, and telescopes.

In terms of hardware and software, the library has printing services and Chromebook rentals. In 2012, they used the Koha-LibLime automation system and made the switch in 2018 to Koha-ByWater Solutions, (LibraryTechnology.org). In 2014, the library utilized the VuFind-Pika discovery interface and transitioned to Aspen Discovery in 2019. Their catalog is AspenCat, a "union-catalog, integrated library system running on open source software managed by CLiC, or the Colorado Library Consortium," (CLICweb.org). Across Colorado, 132 public, academic, and school libraries are members of AspenCat.

Needs Assessment

Developing a makerspace for the La Veta Public Library will not only expand the library's programming capabilities, but also enhance the experiences of the patrons from this small rural town and expose them to technologies they may have previously never seen or tried. It is the library's wish to create a well-rounded space that encourages creativity, trial-and-error, crafting, and digital learning for all ages. In order to do this, the space will need a number of available technologies.

3D printing has become a cornerstone of the digital revolution, and libraries have been taking the lead in introducing this technology to their communities, "empowering people to engage in creative learning, launch business ventures and solve complex health problems" (ALA,

2014). For our library to do this, a 3D printer must be acquired, such as the MakerBot Replicator 2 or 2X, as well as the software to run it. MakerBot offers their own software, MakerWare, to be used with their machines, but other applications such as OpenSCAD are compatible as well. With these in place, the ability to 3D print would be a new and revolutionary addition to the services La Veta Public Library offers to the community.

LVPL also hopes to support STEM-based programming in its makerspace. Around 21% of the population in La Veta are school-aged children (*Census Profile*, 2019), and introducing them to STEM-based projects can support their critical thinking, problem solving, and overall creativity. LVPL is currently interested in Makey Makey boards to bring this vision to life. These boards can be used to connect to the library's laptops and allow children to explore coding, circuitry, and more using everyday objects like pencils and Play-Doh. Additionally, Raspberry Pi, a small, durable personal computer, is another viable option for the library's STEM programming. These handheld computers run Linux, are highly affordable, and are useful for project-making as well as teaching coding.

To support other creative interests of the community, the library wishes to implement sewing machines and the essential accessories (fabric, thread, pattern paper, pins, etc.) for the purpose of workshops centered around this craft. The utilization of a donation bin may also help in the acquisition of usable fabric, as well as other recyclable materials to be used for general crafting.

Mobility is another aspect of this program that must be considered. In order for LVPL to share its resources with the seasonal branch in Cuchara, certain parts of the makerspace can be made mobile for transfer to that branch. The utilization of carts or crates wherein materials can be safely placed and moved between the branches will need to be curated by library staff. If budget allows, fully-stocked mobile makerspace carts may also be purchased.

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Finally, a little known fact about La Veta, Colorado is that it is the start and end point of the annual Stonewall Century Bike Ride, a 105 mile ride that takes cyclists up a 7,500 foot elevation grade through the Spanish Peaks (*Stonewall Century | Spanish Peaks Cycling Association*, 2021). To support these participants, as well as the casual cyclists in the area, the library wishes to incorporate a bicycle repair kit into their makerspace. Advertisement to the public on this new feature will be key to ensure cyclists know this resource is there for them should they need it.

Scope of Work

Glossary

LVPL: La Veta Public Library

ALA: American Library Association

Problem Statement

The LVPL has needs on multiple levels, but the main goal is to expand the repertoire of technology and services offered to residents in the form of a makerspace. The lack of updated technology and cultivation of community engagement through making needs to be addressed and considered from multiple angles. The most recent renovation to the LVPL was in 2006 (LVPL.org), and besides the grant from the ALA in 2021 (ALA, 2021), the most recent grant was from the Bill and Melinda Gates Foundation in 2021 (gatesfoundation.org). Thus, with 20 years between grants, the technology updates needed to create and maintain a makerspace are extensive in certain areas. The acquisition of grant funding from ALA in 2021 has given LVPL the ability to start a conversation with the community to assess their perceived needs and how the

library can attempt to meet them. The next step in the process will include acquisition of new software and hardware elements to better serve the community.

Goals

This project seeks to expand the current programming and technology of the LVPL to allow for creation of a makerspace in the main branch and the possibility of mobile makerspace options that can be transferred between branches. The necessary updates are outlined in the deliverables section and will depend on both vendors and library staff to implement. Both space allocation and technology acquisition and training for use are the main steps in the process desired.

<u>Deliverables</u>

Deliverables	Associated Tasks
Allocated Area for Makerspace	Delineation of makerspace by library staff; Organization of technology, tools, and materials
Mobile Makerspace Boxes	Curation of specific materials and technology that can be moved between branches to expand access
Bicycle Repair Kits	Acquisition of bicycle repair tools and materials for already rentable bikes; application of kits into makerspace area and programming
Makey Makey Boards	Acquisition of Makey Makey Boards and technology; introductory staff training to use

Recyclable Materials for Crafting	Set up of donation bin for recyclable crafting materials within library and announcement to library patrons of collection
3D printing technology and materials	Research and acquisition of 3D printer or multiple 3D printing pens and required filament; introductory staff training to use

Communication Plan

Regular meetings between the staff of the LVPL should be conducted weekly to assess community reaction and any changes needed. Discussion between the staff and vendors should be performed as needed and for training purposes before implementation. There is already outlined a two-part conversation series between library staff and patrons to discuss practical tools to bridge community efforts, and this discussion will set expectations of the community in the allocation of the grant funding given through ALA(LVPL.org).

<u>Timeline</u>

Milestones		
Estimated Delivery Date	Project Milestone Title	
April 2022	Allocation of area for Makerspace in main branch	
April 2022	Implementation of recyclable crafting material donation bin	

May 2022	Acquisition of bike repair kits
August 2022	Acquisition of 3D printer/pens, materials, and Makey Makey Boards
September 2022	Staff technical training for new technology
October 2022	Soft open of makerspace and associated classes

Conclusion

As the global landscape changes consistently due to quick advancements in engineering and technology, innovation has become an asset in any field. These quick advancements have also led to a technological divide for many parts of the community. The divide is often felt more vividly by rural communities for being unable to obtain the same resources as their metropolitan counterparts. For a public library, who is committed to life-long learning and providing for their community, trying to offer their best for patrons to learn more and take part in these new changes can be challenging due to constraints, oftentimes financial constraints. These services shouldn't be limited to large libraries in metropolitan cities. They should also be made available to smaller libraries in rural areas. Innovation should not be confined to one socio-economic area over another.

To make up for the lack of funding, applying for and acquisition of grants is needed to support library changes. To obtain all these new technologies, La Veta Public Library worked hard to obtain grants from different foundations, the most recent being grants from ALA's Libraries Transforming Communities program (2021) and The Bill and Melinda Gates Foundation (2001). With the funds acquired from grants, the La Veta Public Library can use the money to invest in new technologies and reach their goals.

La Veta Public library services La Veta, Colorado, neighboring community Cuchara, and the greater Huerfano County. The city and corresponding county are both small communities in rural areas. La Veta Public Library's commitment to innovation and growth have led to its decision to advance its current technology repertoire and invest in a Makerspace. Advanced technology like a 3D printer, such as a MakerBot Replicator 2 or 2X would give the La Veta community access to 3D printing and expand their knowledge through creative learning and can inspire the creation of small businesses to help grow the economy of La Veta, CO and the greater Huerfano County.

A Makerspace would help introduce children to STEM-based projects and foster their critical thinking and problem-solving skills. However, Makerspaces aren't just for children; the spaces encourage learning, creativity, and innovation for all ages and can influence the growth of the whole community. Utilizing Makey Makey boards for the children and Raspberry Pi personal computers for the adults can help the community learn new skills like coding and circuitry. Because La Veta Public Library services the community across Huerfano County, mobility is important. A goal for the library is to make a mobile Makerspace providing some of the services that are available in the static space so it can be enjoyed by the community county-wide.

All of these ideas for new services and technologies can only be achieved through proper communication, research and planning between the La Veta Public Library and the local community. If everything aligns correctly, La Veta Public Library will be able to provide services for their patrons that will foster their growth, creativity and innovation, and will allow them to keep up with our ever-changing landscape.

Resources

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