

ENABLING SMARTER COMMUNITIES:

The Case of the Ignacio Community Library



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Enabling Smarter Communities: *The Case of the Ignacio Community Library*

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INTRODUCTION

This case is part of the IMLS funded project “Enabling Smart, Inclusive, and Connected Communities: The Role of Public Libraries.” For this project, the Center for Technology in Government (CTG UAlbany) and the American Library Association (ALA)’s Center for the Future of Libraries partnered to better understand how public libraries can advance their role as community anchors in smart city initiatives by contributing to the community’s understanding of and participation in such initiatives.

In addition to four in-depth case studies, the four-year project (2018-2021) included a literature and current practices review, which resulted in a current practices report, and two national surveys. The results from these three activities informed the creation of a policy guide and a toolbox with various resources. *The Opportunity Agenda and Roadmap Report*, as the policy guide, identifies areas of opportunity for public libraries to become strategic partners in the development of smarter, more inclusive and more connected cities and communities. The *Libraries in Smart Cities and Communities Toolbox* provides a set of resources for public libraries that seek to strengthen their role in developing a smart city/community.¹

About the Case Studies

During late 2018 and early 2019, the project research team conducted four in-depth case studies in Chattanooga, Tennessee; Chicago, Illinois; Ignacio, Colorado; and Saratoga Springs, New York. The four locations were originally identified in the research proposal to IMLS and were selected to represent diversity in the size of the public library and the population it served, as well as geographical location in the United States. In addition, the project team looked for public libraries that had publicly documented involvement with smart city or smart community initiatives. Each of the four cases selected met this criteria.

For each location, the project team conducted on-site face-to-face interviews with individuals from the public library, local government and other stakeholders from the community. In most cases, the public library director or designee played a critical role in helping the project team identify interviewees.

Interviews for each case covered the following themes: 1) community context; 2) the library’s contribution to developing smart communities; 3) benefits of the program and services; 4) challenges, costs, and actions to address them; and 5) main lessons learned. Then, the research team discussed important similarities and differences among the cases and overall insights. The results were used to inform the development of a national survey, the preliminary development of the toolbox and policy guide and four case study reports.

For this case study report it is important to note that the information included and the analyses made by the CTG research team are based on the individuals interviewed and the status of the

¹ All of the project’s resources available at <https://www.ctg.albany.edu/projects/imls2017/>

programs and services that the library provided during the timeframe of late 2018 through early 2019. Since that time, some of the individuals interviewed may have changed jobs and a few of the public library programs and services discussed may have changed.

CASE BACKGROUND

CTG conducted interviews for this case study in December 2018 in Ignacio. Below is a brief description of the Ignacio Community Library. We also describe the community context in which the library exists.

The Ignacio Community Library

The official mission of the Ignacio Community Library is to be "a center that brings people and ideas together for learning and growth."² The library is located in the Colorado town of Ignacio, but serves a larger community of over 5,000 residents living within approximately 240 square miles making up the Ignacio Community Library District. Further, the library grants library cards to anyone who requests one. Currently, approximately 40% of its patrons live outside the district and include people from New Mexico, with the state line only 11 miles south of the town. The library now resides in an 11,000 sq. ft. building right in the heart of Ignacio. This new building was constructed in 2006 after the residents within the library district voted to approve a \$2 million bond for its construction. The high voter approval of this tax increase was a testament to the value the residents placed on the library, which had existed since 1991.

The Context

Ignacio has roughly 800 residents and sits in the southwest corner of La Plata County, Colorado. It is located about 24 miles southeast of its closest city, Durango, which has a population of about 18,500. The town and the larger library district can be characterized as rural and somewhat removed from any significant population centers.

Ignacio is situated in the middle of the Southern Ute Indian Tribe Reservation. While the Town of Ignacio is incorporated, it is surrounded by the sovereign nation of the Southern Ute Indian Tribe, whose physical address happens to be in Ignacio. It is unique relationship where the Southern Ute Indian Tribal Council and the Ignacio Town Board represent two equal governmental bodies that provide separate and overlapping services to their respective citizens who reside in the same community. However, the Tribe does not have its own library and is served by the Ignacio Community Library.



According to our interviewees, while there has been improvement in recent years, most Ignacio residents lack access to high-speed Internet in their homes. This is due to a combination of a lack of high-speed Internet availability and affordability for Ignacio residents. High-speed

² <https://www.ignaciolibrary.org/about-us/>

Internet is available in Ignacio's town buildings in the form of a fiber optic network that is housed at the Ignacio School District and made available to organizations in town such as the Ignacio Community Library.

Another very important characteristic of Ignacio is that, since the Ignacio School District was identified as low-performing by the Colorado Department of Education about 10 years ago, the school district and several community partners have focused efforts on improving the schools, as well as the overall educational opportunities for Ignacio youth. As part of the school's improvement strategy, the district established an early release of students every Wednesday, so teachers and staff can do professional development. This early release is supported by other community partners such as the library, Boys and Girls Club, and the Sun Ute Community Center to provide safe and productive places for students to spend the afternoon.

Town of Ignacio's Smart Community Strategy

Although the Town of Ignacio does not have a formal smart community plan or strategy, it has made some limited, yet important investments in making their community smarter. These investments, described below using the project's *dimensions of smartness*³, are helping to lay the foundation for and increase the likelihood that future investments in smart city/community initiatives will be successful and impactful for Ignacio.

Based on this project's dimensions of smartness, Ignacio has *technology deployed throughout the city/community* in the form of broadband Internet although in a limited way (not available to all households and businesses in town). At the time of our case study, there was little evidence of *innovation (mainly technology)*. Meaning, while there was some broadband Internet deployed, the town was not using or investing in other smart technologies to innovate in the areas of operations or public services.

However, Ignacio clearly is investing in increased collaboration among key community stakeholders to help address problems and issues (*community/stakeholder engagement in city/community matters* dimension). In addition, the representatives of key community stakeholders that we interviewed are very interested in increasing the ways citizens can participate in helping Ignacio better govern and address town issues (*citizen participation/engagement in city/community matters* dimension). These collaborative efforts, based on governance and citizen participation, are helping the Ignacio community become smarter. In addition, once there is greater local government interest in investing in more smart city/community initiatives, these already-formed relationships and mechanisms for citizen participation can be leveraged to make sure these technologies have a measurable and desired impact and make the community smarter.

³ Technology deployed throughout the city/community, innovation (mainly technological innovation), community/stakeholder engagement in city/community matters, citizen participation/engagement in city/community matters, and impact.

As with all of our four cases, the *impact* dimension is one that is the most difficult to assess. In general, cities and public libraries measure outputs but do not assess long-term impact. Yet, it seems that the programs and services of the Ignacio Community Library are making an impact in the community. In the following section we describe some current efforts of the Ignacio Community Library which contribute to the development of smart citizens, in particular, and a smart community, in general.

LIBRARY CONTRIBUTIONS TO DEVELOP A SMARTER COMMUNITY

Governments in the United States and beyond are investing in a wide range of technologies to make their communities smarter. However, smart communities are built by smart citizens. Smart citizens are aware of and have the opportunity to benefit from what technology has to offer. They can contribute to smart city/community strategies and help build the city/community they live in. Public libraries recognize this and invest in and design programs and services to help library patrons to become smart citizens by accessing, understanding and purposefully using technology.

Based on our interviews with individuals representing several of the key stakeholder groups in Ignacio, it is evident that the library is contributing to making the community of Ignacio smarter in very important ways. The below programs and services are specifically tied to the smart community dimension of *technology deployed throughout the community*, which is particularly important to develop smart citizens. As mentioned before, in the case of Ignacio, there is limited deployment of broadband Internet in town. Therefore, the Ignacio Community Library plays a crucial role in helping residents access and use broadband and other technologies. The following programs and services are organized into three categories: *developing smart citizens*, *enabling citizen participation*, and *providing an innovation environment* (Gasco-Hernandez et al, 2021). We briefly explain these categories at the beginning of each section.

Developing Smart Citizens

This category refers to public libraries' digital inclusion and digital literacy efforts. First, it includes the Internet-enabled services that public libraries offer their communities. These services include free public access to broadband Internet, Internet-enabled computers, wireless Internet access (Wi-Fi), e-books, wireless printers, and more advanced technologies such as 3D printers and other development technologies (Mersand et al, 2019, IPAC, 2014a). In rural and low-income urban neighborhoods, this service is a particularly valuable lifeline for the community, because the lack of broad availability of these technologies in households (Alemagne et al., 2011; Goodman, 2014; Hildreth, 2012).

Second, developing smarter citizens can be enhanced through digital literacy programs and services, which, in public libraries, includes offering training and assistance for patrons on how

to effectively use a range of technologies. This can include computers, tablets, mobile devices, printers and the Internet. Public libraries provide a range of training, starting with basic computer skills, to more advanced productivity and other software and applications that are commonly available and in use. In addition to formal training classes, public libraries offer community members the opportunity to schedule or even drop in unscheduled to get help from a librarian on how to use a particular type of technology, computer software, or application (Gorichanaz & Turner, 2017; Jerkov et al, 2015; IPAC, 2014b).

Access to high-speed Internet

The Ignacio Community Library's provision of access to high-speed Internet is foundational to its ability to help build a smart community in Ignacio. From our interviews we learned that the Ignacio Community Library is the only public computer and Internet provider in town. We heard that, "For some of the people in the rural areas where they might not have any Internet, people go there every day, check their emails and access the Internet from the library. So, it's a huge service that they provide."

The library serves a number of different population groups, but the primary beneficiaries are the students from the Ignacio Public School District who must do their homework using school issued Chromebooks. In Ignacio, public school students in grades 3-8 are given Chromebooks to use in school but not take home. High school students (grades 9-12) are allowed to take their Chromebooks home and are expected to use them to complete school assignments. The school district estimates that 20-25% of their students do not have Internet at home. In addition, we learned from our interviews that households in and around Ignacio rely predominantly on dial up Internet service that is slower and less reliable than the high-speed Internet provided by the library. For those students, with either slow or no internet at home, the public library is their main place to go for their homework. Students can bring their Chromebooks to the library and utilize the library's free high-speed Internet. According to one interviewee from the school district, "every student has some sort of online program to meet their weaknesses; whether it's Math, English, or Science. It's all web-based, so you need the technology, Internet, bandwidth to provide those programs to them, because with the Chromebooks it's all cloud based. So, they're pretty dependent on the Internet and the cloud." The library interviewees also stated that it was a priority of the Ignacio Community Library to provide reliable and secure computers with Internet access.

Computer and wireless printing access and use

The library is providing much more than high-speed Internet access. For those that don't have devices with software that utilizes high-speed Internet, the library not only provides computers (approximately 30 computers for public use) and software, but also shows patrons what to do once they get on the device.



In addition, the library now provides wireless printing for its patrons. For some, this would seem like a relatively simple and maybe even unnecessary service, but for some residents of Ignacio, this is very important. From our interviews we learned that the library is aware of a lot of people using e-commerce websites at home to sell various items, but they do not necessarily have a printer to print the labels and other information to mail

the items.

Computer training classes and assistance

While Ignacio Community Library staff are available to help patrons with computers at any time during library hours, they have responded to the demand for this kind of assistance in two important ways. One is providing classes on computer and software use from beginner to more advanced software programs. Second, they provide regularly scheduled technical support times for patrons to come by and get one on one assistance. For the technical support sessions, they provide drop-in times twice a week, in the morning and evening.

Medical and research databases

The library participates in the two health fairs that are held at the Sky Ute Casino Resort each year with an information booth. They take books, but also provide access to medical databases that the library makes available to patrons. They take the time to show Ignacio residents how to access the databases and what types of health-related information is available. One librarian explained, "People have no idea what's out there. And our library databases are secure and safe places for them to go. Also, the information is correct."

Through the library's website, residents, especially students, are able to access several different databases that had previously been available from school but were eliminated due to budget cuts. Again, it was said, "People have no idea what's available most of the time. So, we've even had classes from the high school come in. We've gone through our databases with them; especially with kids headed to college."

Launch PADs for the senior center

As part of the library's outreach to older adults in the community, a designated librarian visits the town's senior center once a month and brings books and Launch Pads. A Launch Pad is an

electronic tablet that does not connect to the Internet but has pre-loaded games. The Launch Pads for the seniors have crossword puzzles, information about different countries and brain teaser games loaded on them. The library feels that providing the Launch Pad to the seniors, which includes Southern Ute Indian Tribal Elders, helps get them comfortable with technology in addition to providing much needed and welcomed interaction with community services.

Enabling Citizen Participation

Programs and services in this category can also include the role public libraries play in helping citizens engage with government and other stakeholders and participate in the planning for and process of making the community smarter. For example, using the public library and its staff to facilitate a conversation on which technologies and how they will be used will actually benefit the community and its needs (Maxwell, 2018).

Career services

Beyond basic or even more advanced computer literacy skills development, Ignacio Community Library helps patrons with more specific or customized services such as resume building and completing online job applications. Interviewees explained that, "there is a population [in the community] that still needs us for work: where to apply for jobs and most of that is online. That is really significant." In addition to helping community members build resumes and apply for jobs online, staff have seen individuals use the computers to participate in job interviews through Skype or other online video platforms.

Digital government

The library provides access to -- and helps patrons use -- a wide range of databases and online services such as banking and government programs.

Some examples include:

Online school registration - Student registration at the Ignacio School District is completely online. As a result, numerous parents and guardians come to the library to use the computers to access the school's online registration system.

Signing up for health insurance - Beyond providing access to databases and other online information, the library also helps patrons with online government services, such as signing up for health insurance. One librarian noted, "Sometimes we'll open our Idea Lab⁴ and help people with that. People just get angry over it and they come in. There's so many things government wise that you have to do online and it's limited for people."

⁴ The Idea Lab is the name of Ignacio's digital media lab that was created with funding from the Small Libraries Create Smart Spaces grant awarded in 2017 by WebJunction.

Providing an Innovation Environment

The programs and services in this category demonstrate how public libraries serve as knowledge hubs and innovation environments where social gathering, interactive learning and creative production take place (Leorke et al. 2018; Vilariño et al. 2018; Ylipulli and Luusua 2019). This includes the development of entrepreneurship and civic innovation. In addition, through these programs and services, public libraries offer their communities a safe and inclusive space where technology may be used to improve how citizens, businesses and other groups engage and conduct business with government (Ayre and Craner 2017).

Makerspace

With funding support from WebJunction's Small Libraries Create Smart Spaces grant program, the Ignacio Community Library built their Idea Lab. The Idea Lab builds on the library's high-speed Internet access and incorporates modern equipment and staff expertise to create a makerspace for all of Ignacio's patrons to use. Since its launch, the library staff have witnessed a diverse group of community members take advantage of the Idea Lab resources and the programs and services it supports, from young children, teens, job seekers, families, and seniors. Speaking with the library staff, you learn that Idea Lab is supporting the growing demand for "hands on learning."

Future Actions to Contribute to the Development of Smart Communities

Access to high-speed Internet will continue to be crucial in the Ignacio community as long as availability and affordability remain hurdles. Broadband Internet is a foundational deployed technology for a smart community; one that other smart technologies need in order to be successful. "I keep thinking there is going to be a point that the need isn't as great for that, but I'm not seeing that. It still seems to be a really critical piece to have access to the Internet when they don't have it at home. That part of it seems to be continuing to grow," stated one librarian. The library has noticed that basic digital literacy (i.e., helping with new devices and accessing new information) is still important but is no longer "a huge learning curve." It appears to be leveling off. However, the library sees a growing demand for what they call, "hands on learning." Following are a few examples of future actions that interviewees from the Ignacio community library told us they are considering to contribute to the development of Ignacio as a smart community.



Place and forum for interactive discussions

The library and other community partners we spoke to have identified the opportunity to use the library to host and facilitate more interactive discussions with Ignacio residents and various stakeholders. Examples mentioned included community discussions on general topics such as immigration, taxes, or education. We also heard about using the library to bring together

community members and the town board to discuss local issues such as rate hikes. Also, it was proposed to use the library as a forum for political candidates either running for or currently in county and state government positions to speak with community members and answer questions. The library has done this in the past by hosting a forum with all the candidates for county commissioner. However, the community members we spoke to agreed that the community would benefit from more activities like that using the library. Technology is key in the development of smart communities; however, smart communities have to be developed for, by and with citizens. Ignacio Community Library's ability to facilitate and provide the physical space for citizens to participate in the testing, evaluation, and design and deployment of technologies within their community is key to the implementation of programs and services that positively benefit and impact all citizens.

Providing space and technology access for new businesses

At least one community stakeholder discussed the potential use of the library for community members to use, if only briefly, to help start a new business. This could be very beneficial to anyone who may lack office space and the technology, such as high-speed Internet, that is generally necessary when launching a new business. Library staff indicated that this is something they could support on a limited basis with its current space. Such a program or service provided by the library would directly support the smart community dimensions of *innovation (mainly technological innovation)* and *impact* as Ignacio residents try and innovate by taking advantage of broadband Internet. In this case, the benefit will be to the local economy as residents are able to start and run their own businesses.

Growing partnerships with other key community actors

Expanding on existing and building new partnerships among community organizations was a repeated theme throughout our interviews in Ignacio. Most if not all of those we spoke with noted the importance of partnerships and gave specific examples. Currently, the collaborations with other community stakeholders do not involve the development of smart city/community initiatives by the town. Yet they are creating partnerships that could be used in that way in the future. Below are a few examples.

Grocery store - Ignacio has a relatively new grocery store in the center of town that several interviewees told us has been a great contributor to Ignacio and the county with its focus on healthy foods. Interviewees said the store has been very good to work with contributes to the community, including at community events. In terms of partnerships, the library discussed the working with the store to attach children's books to carts for kids to read while their parents are shopping. The books are called "indestructibles" and would hold up well from repeat use.

Sun Ute Community Center - The Sun Ute Community Center is another strong partner in the Ignacio Community. Funded by the Southern Ute Indian Tribe, it is open to residents of Ignacio and the surrounding community.



Members of the Tribe can join for free and non-tribal members can join for a reasonable monthly membership. In addition to physical fitness, the community center is committed to improving the mental health of Ignacio residents. As an example, the community center is partnering with the library to try to address what all agree is a critical problem with suicide in the community and surrounding areas. The

two organizations are working to develop a joint program that will involve consistent messaging and activities each month, highlighting different aspects of mental health related to suicide. The library and community center hope to include the school district and local home school programs in this program to ensure consistency and maximize community exposure.

BENEFITS OF THE PROGRAMS AND SERVICES

Ignacio is rural and relatively far from major cities. Due to this, the community is challenged to stay current, including access to new technologies. In addition, Ignacio struggles with attracting people to live and work in the community, either due to a lack of jobs or a general preference to live and work in larger cities and communities. The library is helping to overcome the results of that distance and remoteness and helping residents, from young to old, to keep current. Broadband Internet is the main technology in the Town of Ignacio that is helping support smart city/community initiatives. Given the broadband internet's limited footprint in town, the Ignacio Community Library plays a crucial role in providing residents access. They offer training and assistance on the basic use of various technologies that are enabled by broadband Internet. Beyond helping Ignacio residents improve their digital skills, the library has invested in their staff and built partnerships with other community stakeholders to show residents how to use smart technologies to do a wide variety of things that help them improve their quality of life.

The Ignacio Community Library staff interviewed believe that the programs and services described are helping the community get exposed to -- and learn how to use -- state-of-the-industry technologies that are used throughout the world. Also, they provide personal benefits by helping residents stay connected to family and friends who do not live nearby. The library also helps residents apply online and even interview remotely for jobs. In sum, by enabling access to technology, building digital skills and learning about using the technology with a purpose, the library is investing in developing smart citizens in Ignacio.

Longer term, the library and other community members are laying a foundation of technology and digital literacy and awareness. They are forging community partnerships and mechanisms for citizen participation that will help the community maximize the benefits of the eventual and inevitable introduction of additional smart city/community initiatives. Through this combination of access to technology, training, community collaboration and citizen

participation Ignacio is becoming a smarter community. The town is impacting the quality of life of its residents by expanding access to public services, improving residents' employability and make social and family lives more joyful, just to give a few examples.

CHALLENGES AND COSTS AND ACTIONS TO ADDRESS THEM

From our interviews in Ignacio, we identified five major challenges of implementing programs and services that contribute to developing a smart community.

Maintaining Relevance for the Community

This challenge was identified by both library and non-library stakeholders. One of the non-library stakeholders commented that the library was very similar to their organization, a community center, in that they work with birth to 90 years old. Therefore, they have to stay relevant for everybody. "And it is so hard, but that's our task. As the world changes so quickly, we have to keep up with that," emphasized one librarian.

Also, Ignacio has a number of different ethnic groups in the community. Ignacio used to be called a tri-ethnic community because they had the Tribe and a Hispanic community and a white community. That now has expanded to more ethnic groups.

The library admitted they have trouble doing outreach and getting involved in those communities. Speaking about the Hispanic and Southern Ute Indian Tribe communities, one librarian stated, "We're not meeting their needs. We're not sure why. We're not sure what's going on with that, but they don't come in. Their kids do, but the adults don't. But we haven't figured out what that piece is yet."



Another librarian was puzzled by the uptake of new services like the makerspace. "No matter how hard we push with the makerspace, people think that's for kids and they don't think it's for adults and I don't know how to change that. Because we'd really like to see adults using it to build their skills, especially job skills. And we're not seeing as much of that as we'd like. It's primarily kids."

In order to deal with the issue of relevance and meeting the needs of most, if not all of the community members, the Ignacio Community Library leveraged a combination of staying current on the latest trends in technology and new services modeled on libraries from around the country. The Library is engaging the community both to advertise what it has to offer and also to continue identifying community wants and needs.

As far as staying current on the latest technology trends, the Ignacio Community Library applies a strategy of self-learning and bringing in outside experts. For example, a significant number of patrons expressed an interest in learning how to use Excel. So, one of the library staff members is going to take an Excel class and in-turn plans to offer it as part of their career and technical support classes. In another example, patrons expressed interest in learning how to use a

software package available in the Idea Lab to record music. No one on staff was trained in that particular software, so they brought in someone from the local public radio station to show them how to use it. One of our interviewees noted, "There are a lot of community members who will come and offer their time. And we just dig in there and try and figure it out." Also, once a month, the library has a Denver-based lawyer use Skype to provide library patrons with legal advice. Patrons can sign up for 15-minute sessions. From one library interviewee, "he must be absolutely wonderful, because people come out of there just raving. They know exactly what they need to do and he can help them. I'm glad we're doing that. We usually fill up with four people every month with that." The library also has access to a website that provides legal assistance. "People really learn the steps. If it's child custody, it goes through the steps, these are the forms, these are what you have to do before you start anything. That's used a lot."

As far as determining the community's needs and what they want from their library, one important activity is periodically conducting a strategic or similar planning effort that engages as much of the community as possible. The Ignacio Community Library did that about five years ago and the initiative was facilitated by an external expert from the Colorado State Library. The strategic planning process involved several different engagements with community residents to gather information on what Ignacio wanted from its library. The library also did a survey of Ignacio students and their families. This process ended up being very useful in helping the library develop its programs and services. One of our interviewees noted that one key to the success of the strategic planning was the person who ran it. The individual from the State Library did not ask what the library can do. Rather, she asked "what do you want your community to be?" ... "What kind of community do you want to live in?"

Location

One challenge the library, and indeed the community, faces is its geographic location. The town is a substantial distance from major cities and is generally remote and rural in nature.

The location increases the length of time it takes for new technology and other novel initiatives to reach the town. A librarian stated, "Technology doesn't hit us for six months to a year and a



half after it's popular in other places. That is a difficulty or challenge right there by itself. Just being in that rural area makes it hard to stay up to speed on all of those things."

The library addresses the challenge of location and its impact on the greater community (and the library itself) by trying to shrink the distance and remoteness through access and exposure to technology. The availability of high-speed Internet, the Idea Lab and the trained and committed staff help provide the community with hands-on learning that is usually more readily available to people in larger cities. With the Internet,

access to computers, and the appropriate software, Ignacio residents can more easily and virtually keep in touch with family, apply and interview for jobs, and get exposed to authors and experts who are willing to Skype into the library for a program or service.

Library Budget Fluctuations and Keeping up with Changing Technology

There's only a limited amount of budget for any library no matter how big or small it is. So they constantly have to make choices. When it comes to technology, the costs include maintaining and upgrading the computers, networking and security hardware, and the cost of the many different types of software the library makes available on the computers. In addition, it includes the specialized tools and software that are available in the Idea Lab.

According to one of the IT experts in Ignacio, "Technology is expensive. There's just no way around that. We are a money hole." Also, "Keeping smart people there that are up and know the technology is the hardest part. Because it changes so fast. It's a full-time job just to keep up with it: what's next? Latest greatest, what's that?"

Therefore, any time a library is going to be buying computers, software and high-speed Internet access, you are potentially taking away from other programs.



In addition, the Ignacio Community Library has experienced budget cuts of approximately \$200,000 in the last few years, which presents a very real challenge.

How does the Ignacio Community Library deal with managing technology costs along with a fluctuating overall library budget? They get creative. Library staff told us how they have begun looking at free and low-cost options for computer software. For example, in addressing the large expense of having Microsoft Office products on all of their computers, interviewees explained that, "We finally went through Tech Soup [a technology product philanthropy program that serves nonprofits, libraries, and foundations] and were able to load all of our adult computers with Excel and Word on them and we get that for like a \$150 for all of them." They have also cut back on resources that patrons are not using. For example, "we've cut our databases back some. Just ones that weren't being used because we pay \$3-4,000 a year for a lot of them. People aren't using them, we don't need to have them out there." In addition, the library leveraged their strong Internet and switched their phone system over to Voice over IP (VOIP) and that saved money as well.

Overall, when the library considers doing a new program, they pay special attention to how they can do it for free by using free resources, such as open source software. They also look for experts in a given area to volunteer their time to come to the library to teach the library staff a new skill, or do a session for library patrons. One librarian commented, "It's a challenge, but it's fun and we've probably made better programs in some ways." Another librarian noted, "I

doubt the patrons have noticed anything that we've cut back. We'd rather cut back other things than our technology. I think that's probably the most important thing in the library. But sometimes we don't go buy some fancy purchase or program that looks really cool. We find it for free and it works just as well. Our technology probably would be the last thing we'd cut back, because that's basically what keeps the library going anymore."

The library also has been very successfully in making use of the federal government's E-Rate program, a government reimbursement program that discounts the purchase of telecommunications services for libraries and schools. Reimbursement is based on the number of free and reduced lunch students that are present in a given community. For the Ignacio Community Library and the school district, the government reimburses up to 80% of the technology costs. One interviewee from the library said, "So that has helped a bunch with that infrastructure piece. Without that we would be in a bind." Referring to the E-Rate program process, another one stated, "It's not easy. So that can be a challenge. There are a number of libraries that won't bother, because it's so time consuming and difficult to sort through that process."

Finally, we heard more than once that a library cannot be successful with funding supplemental sources without a good *Friends of the Library* program. Librarians agreed, "It's hard to apply for grants without having a good Friends group. [Funders] feel that if your community is not involved, not supporting you, why should they."

Collaboration and Communications among Community Partners

All of our interviewees agree that collaboration and communication among key community stakeholders is a constant challenge. "We all work in some silos here. We get really busy and get tunnel vision and our walls go up," stated one community leader. In typical fashion, organizations can be territorial and are hesitant to collaborate when the question of who is going to pay and who is going to design and deliver the program are on their minds. Another interviewee added, "Lots of those challenges just come back to money. And again, how do we get all the players together to talk to each other and see how we benefit the community."



For the library, the key to overcoming this challenge is to focus on outreach and having that be part of library staff's jobs. The library director has assigned each of her staff members to reach out and to work with a different community group or business in town. One librarian stated, "We have someone who goes to the senior center at least once a month, to the radio station at least once a month... we help judge the science fairs at the school and so it's being out in the community and talking to everyone." Also, to address financial costs and help build stronger partnerships, the library is looking to write more grants with the other community organizations to make best use of their current limited resources.

Other community stakeholders also see the library as a place to help bring different community organizations together to form stronger partnerships. One interviewee told us, “We need to become more involved in working together with the Ignacio community and through the community library, it's a very good segue of accomplishing that. They recognize that they're in the middle of Indian country, but there's a lot of Hispanic influence that came and helped build the municipality of Ignacio. So, we have to do it collectively and having the library right in the middle of town.”

MAIN LESSONS LEARNED

From our analysis of the Ignacio case study, we learned six main lessons that contributed to the Ignacio Community Library's ability to help make their community smarter. These six lessons can be used by other public libraries interested in understanding how they can play a similar role in their own communities.

Create Partnerships

It is important to strengthen existing community partnerships and build new ones. Consistently, community stakeholders pointed to the library as a trusted partner. It is therefore important to know the community's needs and respond with appropriate programming and partnerships.

All of the library staff we spoke to talked about the importance of figuring out their community needs to develop new programs and services. Staff demonstrated the importance of attending community meetings to learn about community needs and existing programs, and to educate residents and stakeholders on the library (and what it can do). Such partnership building among key community stakeholders will be important as Ignacio looks to develop more smart city/community initiatives.

Whether it's the town government or another organization, they can rely on these existing collaborations to help decide what and how to deploy and implement to best meet the needs of Ignacio residents.



Develop Adequate and Flexible Facilities

The library building itself was often identified as a success factor for the community. The library building is large, modern and welcoming. It sits in the middle of downtown and, by design, has an outdoor public space at its entrance. In the front of the building, as soon as you walk through the front doors, is a large room open to the community for library hosted and non-library hosted community events. It is the only such available community room in the town. Inside, the layout, the décor and the rooms provide what could easily be called high quality space and resources available to everyone. The quality of a library's facilities can be as

important as the quality of its staff. From a smart community perspective, library space can be used by patrons and trained library staff to innovate with new technologies which are offered as part of library programs and services. In addition, library meeting rooms and other spaces can be used to facilitate citizen participation in smart community development by bringing together citizens and government or other key community stakeholders.

Develop Great Library Staff

In Ignacio, every stakeholder we interviewed made a point to mention how great the Ignacio Community Library staff are. Terms and phrases used to describe the individuals working at the library included: "These are great, great people." "This is an inviting environment, it's a safe environment. It's an environment that's conducive to learning. I think it comes down absolutely to the people who populate this building and the building." From the Tribe's perspective we heard, "They enjoy it. They like the service there. They can communicate with the people that work there. They don't put them down or what's called sometimes racism around here. They feel that they are comfortable in that environment at the library."

As far as how this affects a community harnessing technology and becoming smarter, "People engaging with their community is important. So, the smart aspect of it is important, but not if you don't have the people part." Great library staff are important because they are approachable, helpful and trusted. This has a direct impact on the potential for community stakeholder partnerships, helping Ignacio residents to innovate with new technologies and facilitate citizen participation; all of which help make sure that community needs are factored into the smart technologies that are deployed, resulting in government programs and services that have positive impacts on Ignacio and on the people who live there.

Ready to Harness High-speed Internet

Broadband Internet is the foundational technology to be deployed for any smart community. Therefore, another very important success factor for the library and its role in helping make Ignacio a smarter community was their ability to take advantage of high-speed Internet when it was made available to them. One of the stakeholders we interviewed played a critical role in bringing the fiber-based high-speed Internet to Ignacio and stated, "They handled it like a champ. They had all kinds of ideas on what they could do with a bigger pipe. And that's exactly what you want. You don't want to give someone, hey here's this race car, and they're like I just wanted to go and buy groceries. You want people like, let me tell you why I want this race car. Here's why I need this race car."

Being Respected and Valued in the Community Helps with Funding

Being seen as a valuable community partner and resource by the library patrons and other citizens who pay taxes is a key success factor for the Ignacio Community Library. Mentioned by more than one of the interviewees, the library would not have received the funding for its current building if the citizens of the library district did not approve the "mill levy" tax rate increase. According to one non-library stakeholder, "If you're providing poor or no service, it's highly unlikely that they will be able to get a tax increase across with the vote of the citizens."

"On a Yes vote, I think that would be confirmation that they're providing the services that people need." In this case, the Ignacio Community Library successfully demonstrated the potential value of a public investment. This ability will be needed as Ignacio and other communities begin or continue to invest in new technologies.

FINAL COMMENTS

While the Town of Ignacio does not have a formal smart community program or overall strategy, it's clear that it has started to make important investments in making its community smarter. The Town of Ignacio has deployed broadband Internet to a few key community stakeholders. Some possible next steps in becoming smarter could be to more widely deploy its broadband Internet connection throughout Ignacio and begin to invest in other smart city/community initiatives that build on these capabilities to improve government operations and services and support economic development. The town is working on strengthening community stakeholder collaborations and mechanisms for citizen participation, which will be critical to ensuring that future technologies have measurable positive impact on Ignacio.

For its part, the Ignacio Community Library provides a set of programs and services that are directly helping not only the people of Ignacio, but the surrounding communities as well, to have the access, skills and knowledge to learn about how to use current and new technologies, and even more, take advantage of and benefit from them. More specifically, the library is a place where any and all Ignacio residents can get access to broadband Internet and use the programs and services enabled by it to improve their quality of life. In addition, the Ignacio Community Library is actively seeking to strengthen relationships and meaningful collaborations among key community stakeholders. The library already provides capability and is looking to expand its ability to use the library and its staff to engage citizens and provide them with the mechanisms to actively participate in community-wide decision-making and problem-solving. When the opportunity, need, or desire for additional new technologies comes to Ignacio, the library will be well positioned to play an active critical role in making sure they make the town smarter for all.

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