Studio Rhode
Toolkit for Next-Generation Libraries
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The Studio Rhode Next Generation Library Challenge Toolkit is a guidebook designed to support libraries seeking to reimagine their services and programs. The toolkit is the culmination of a two-year design challenge that supported six Rhode Island libraries in piloting new ways to engage their communities and embed technology into services. In this toolkit, we share the basic principles of the Studio Rhode challenge, as well as guidelines for planning, implementing, and evaluating innovative pilot programs of your own. We offer practical tips and tools based on lessons learned from our supported projects, including general project recommendations and recommendations based on four areas we saw emerge as common threads: community partnerships, space redesign, engaging teens and tweens, and virtual reality. We showcase case studies from the libraries, large and small, throughout Rhode Island that engaged in the process. Our website (http://studiorhode.ri.gov) also includes an expanded selection of practical resources, including budgets and vendors, materials created for the projects, and other planning and evaluating resources so that other libraries may replicate and implement similar pilots.
CALL TO ACTION

The goal of this toolkit is to inspire libraries to embrace change and to think differently about how they deliver programs and services to their communities by embedding technology, reimagining space, and building community partnerships.

WHO WE ARE

The Rhode Island Office of Library and Information Services (OLIS) is the state library agency for Rhode Island. OLIS strengthens, connects, and empowers libraries to advance knowledge, connect communities, and enrich the lives of all Rhode Islanders. We provide services and programs for all types of libraries including public, academic, school, and special libraries. These services support and strengthen library and information services in the state to ensure that all Rhode Islanders have free and convenient access to library and information resources and services. Learn more at http://olis.ri.gov.

The Rhode Island Office of Innovation (RIOI) is a governor’s initiative charged with inspiring and accelerating innovations in Rhode Island’s largest systems, from state government to education to infrastructure. We use non-traditional strategies to advance this work forward, engage local implementation partners at every stage of the process, and assess and iterate on projects every six months. Learn more at http://innovate.ri.gov.

ACKNOWLEDGMENTS

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Libraries have always been on the front lines of addressing changing community needs and the new ways of sharing and understanding information.

— UNITED STATES SENATOR JACK REED
Throughout the centuries, libraries have primarily served to provide access to physical collections. The design of library buildings and spaces—from collections of papyri to closed stacks to today’s open stacks and circulation desks—is a testimony to that mission. Staffing, programming, and general user expectations reinforced and perpetuated this role. As a result, public perceptions of libraries as repositories for print-based and physical media persist today.

In Rhode Island and across the nation, libraries are increasingly exploring new ways to engage communities beyond traditional print-based services. Libraries are embracing their role as community hubs that empower residents to be active learners and creators by providing learning lounges, computer science training, literacy programs, and makerspaces. But more work needs to be done to truly transform the experience of those who visit libraries and empower libraries to meet the needs of the twenty-first century users.

The Studio Rhode Next Generation Library Challenge supports Rhode Island libraries to explore ways to accelerate this transformation. It provides Rhode Island libraries the opportunity to use technology and space in different and innovative ways in order to provide new services to their communities. This reimagining of tools and space—as well as the integration of traditional and new services—enables libraries to proactively create their future. Studio Rhode is led by the Office of Library and Information Services in conjunction with the Rhode Island Office of Innovation.
STUDIO RHODE LIBRARIES AS “LIGHTHOUSES”

Studio Rhode is not simply meant to support individual libraries in the Ocean State. This project and the framework that supports it is meant to provide replicable and scalable learnings for libraries throughout Rhode Island and beyond. The Studio Rhode libraries are exemplars for the positive community impact of the Studio Rhode framework, the potential of next generation library models more generally, and proof points that sustainable and impactful projects are possible.

As of September 2018, Studio Rhode has run two rounds of funding support. The first round launched in Spring 2017 with two grant winners: Woonsocket Harris Public Library and Westerly Library & Wilcox Park. The second round ran in Spring 2018 with four supported libraries: Adams Public Library, Greenville Public Library, Providence Community Library, and Warwick Public Library.

### Round I

The first Studio Rhode challenge awarded two libraries, Westerly Library and Woonsocket Harris Public Library, a total of $144,000 to recreate a new library space as well as a suite of Apple products (iPad Pros, iPad Airs, Apple TV, iMacs/MacBook Airs, charging carts) to support better usage of that space. The projects undertaken in this first round of Studio Rhode are meant to be ongoing.

### Round II

This second Studio Rhode challenge awarded four libraries up to $10,000 each to purchase equipment, supplies, or services to pilot a new program or to strengthen an existing one. In this second challenge, applicants proposed how their libraries would use the funds to reimagine their role as a digital community hub for multigenerational and inclusive learning in a fashion that best meets the needs of their community. This round of Studio Rhode was designed to support one short-cycle (three to four month) pilot project.

### PRINCIPLES

The Studio Rhode Next Generation Library Challenge is grounded by three core principles:

1. **COMMUNITY CONCIERGE**
   - The concept of Community Concierge imagines a library that is shaped around the needs of all community members, regardless of ability, socioeconomic status, or age. Libraries embracing a Community Concierge approach use the experiences of library goers as the key driver of the design of both the physical and virtual space of the library. We believe this tenet creates an open, inclusive, engaging, and interactive place for collaboration, driven by a clear understanding of user requirements, tools, and learning activities tailored to those needs.

2. **DIGITAL CREATION STUDIO**
   - Studio Rhode envisions the library as a place for members of the community to design, create, and share knowledge with next-generation digital tools. Studio Rhode seeks to transform libraries into places of active knowledge creation—by creating digital stories and new media or using digital tools to develop new ideas in service of community and individuals.

3. **NEW TOOLS**
   - Studio Rhode libraries leveraged grant dollars to purchase new and lasting technology that supports the tenets of Community Concierge and Digital Creation Studio. For example, the first Studio Rhode challenge provided two public libraries with access to Apple hardware and all the content that comes with it—through the App Store, iBooks Store, iTunes U and iTunes as well as the tools to become content creators through Apple’s creativity and productivity apps.
PLANNING A PROJECT

Use a Project Framework
For the Studio Rhode Next Generation Library Challenge, we used Design Thinking as the framework for our projects. As part of the application process, interested libraries were invited to Next Generation Library workshops hosted by Apple, RIOI, and OLIS with activities drawn directly from the Design Thinking framework and adapted to libraries. Interested libraries were encouraged to use the IDEO Design Thinking for Libraries Toolkit (http://designthinkingforlibraries.com) throughout the project design process. Libraries reported feeling empowered by the brainstorming activities and encouraged by the resources provided in the workshops and IDEO’s toolkit.

Start with Community Need
Too often, new projects think first about the inputs they could use (resources, equipment, technology) and only after think about what the community needs are. Examine your community closely from the outset to avoid purchasing equipment that sits unused. Use census data, focus groups and community surveys, observations in your library, library-goer shadowing, and other data that you already collect to closely examine your library’s community identified needs. Design Thinking shows us that we may think we know what a population needs, but deeper study can often provide new insights.

Be Playful with Your Idea
As part of the Design Thinking process, Studio Rhode workshop facilitators urged attendees to play with their idea. Draw pictures, use imaginations, think big, and have fun. Approaching a project with a playful and open attitude will lead to many possible solutions to a community-identified problem, which a team can then workshop together to develop innovative and achievable project goals.

Consider Your Limitations (But Don’t Let Them Stop You)
Unrealistic or grandiose projects will not go very far. If you do not have the staff, money, or space to support your initial idea, redesign your project. No one will benefit from a project that is underfunded, understaffed, or without adequate space—not the project team, who can wind up frustrated and overwhelmed, and not the community that the new service or program is meant to serve.

Lack of staff, funds, or space should not, however, deter you from piloting innovative services and programs for your community. Visit the section on Planning within Constraints (pg. 25) for some ways the Studio Rhode libraries built projects that acknowledged limitations without letting them stifle efforts.

EVALUATING PROJECT IMPACT

Too often, project teams wait until an effort is over to evaluate its impact. Embedded in Design Thinking, Studio Rhode challenges participants to evaluate a project’s impacts throughout implementation in order to determine the best ways to sustain changes to library programs, space, and services.

Know your Inputs
By starting with community need, Studio Rhode projects have ready access to strong input data. Knowing what relevant inputs already exist in your context will help you define your project goals and activities and will give you a reference point against which to compare the information you gather throughout your project.

Create a Plan
Before you begin a pilot, develop a plan for measuring the project that includes when and how various data will be gathered, what metrics you will use to inform how you improve the project as well as those that will help you determine the ultimate success of the project, and check-in points throughout. Plan to collect a variety of metrics—surveys, participation numbers, social media reach, focus groups, observational data—that you can specifically connect to project goals.

Do Not Reinvent the Wheel
Use resources that already exist to help you measure the impact of an innovative library pilot project. We recommend Project Outcome surveys (http://bit.ly/ALAProjectOutcome) from the Public Library Association, as well as the accompanying resources. Project Outcome provides pre-made surveys to measure outcomes in seven different program areas, managed through the free Project Outcome portal. They also provide robust resources for creating your own meaningful measures to track the outcomes of library programs including resources for running focus groups, writing open-ended questions and deciding what kinds of measures you will want to use in the first place.

Project Outcome surveys will not necessarily provide a holistic, deep analysis of a library service or program, but they are a convenient and effective tool that can be used to tell part of the story as one component of a metrics plan.
FRAMEWORK FOR PROJECT EVALUATION

1. IDENTIFY YOUR PROJECT GOAL
   Start by aligning actions to the overall project goal. If your project goal is to create an interactive, multi-generational learning experience, list a few discrete actions the library will take to achieve that goal.

   Examples are:
   - offering particular programs for particular ages
   - working with community partners
   - creating a new space for the project

2. CREATE IF-THEN STATEMENTS
   Next, write a few (two to three) simple “if-then” statements to clearly state the desired outcome of those actions:
   - If the library works with community partners, then patrons will have more awareness of experts in our community.
   - If the library creates a space dedicated to digital learning, then library patrons will be more confident using digital learning tools.
   - If the library offers coordinated programs for all ages, then library staff will feel more like an integrated team.

   You can have more than one desired outcome for each action, but avoid having too many or project measurement will get messy.

3. MEASURE IMPACT WITH METRICS
   Once you have stated the desired effect of each action, figure out how you will measure those effects. If you said that the project will increase patron confidence using digital tools, how will you know that has happened? During this step consider a variety of different types of metrics to capture a holistic view of the project, which when examined together can show impact.

   These could be things like:
   - **Process measures:** What did you do? (Programs held, program locations)
   - **Output measures:** What can you measure? (Program attendance, computer sessions, social media interactions)
   - **Outcome measures:** What changed as a result of your actions? (Participant learnings, behavior changes)
   - **Balance measures:** Did people like what you did?

   Ideally your plan will include a mix of process, outputs, outcomes, and balance measures.

4. SCHEDULE PROGRESS CHECK-INS
   Build a schedule of metrics check-ins throughout the project timeline. Do not wait until the end of the project to look at your various metrics and assess project success. If you notice disappointing outputs, outcomes, or patron reactions, you have the opportunity to reexamine your processes and the causal relationship of the “if-then” statements you have created—and adjust your actions as needed.

To find professional competencies that you can use as part of your metrics plan, visit the American Library Association’s website. (http://bit.ly/ALAcompetencies)
**Look Inward**
Successful pilot projects not only affect the community using the library, but can also spark changes in library staff and employee culture. Changes in library staff knowledge, confidence, behavior, and awareness of resources are as much potential outcomes of a pilot as changes in the library community. Examining project-related professional competencies and using them as assessments or guidelines throughout the project process can be valuable when determining project success.

**Stick With Your Evaluation Plan**
Stick to the metrics you’ve outlined that specifically connect to project goals. It can be tempting to collect as much information as possible, but truly consider if, for example, the number of library cards issued in a month actually has anything to do with your project activities. It may, but remember your plan and focus on collecting relevant outputs, outcomes, and patron responses that tell a story about this project.

Remember to also follow the schedule you outlined in your measurement plan. You may find if you wait until the end of the project, you are scrambling gather appropriate metrics that will help you discern the impacts of your project. You may not have the information you need, or it may show that you ought to have adjusted your project processes and activities during the pilot window.

**Tell an Honest Story**
Look at all the relevant data you collected to tell the full and honest story about your pilot project. Both positive and negatives outputs, outcomes, and patron responses will play an important role in determining whether you have achieved your project goals and had the impact you desired. Impact represents change over time, and can be difficult to show, however if you collect a variety of metrics over the course of the project, these should help make a case.

If you show that the library offered programs for all ages, attendance was high at your project-related programs, that your patrons increased their awareness of resources and that they reported enjoying programs, that community partners brought in new audiences and that library staff felt empowered to use new resources, you now have evidence that your project had the desired impact of creating a community hub for multi-generational learning.

Continuing to gather information about your project will allow you show long-term impact, and starting again from the beginning of the design thinking process can help to refocus the project, or make changes that will improve outcomes. To create impactful, sustainable change in your library, this work must be a continuous and iterative process.
Lessons Learned

GENERAL LESSONS LEARNED

Our libraries faced many challenges and experienced many victories as they worked to achieve their project goals in very compressed timelines. Looking at six very different projects, we distilled the experiences of planning and executing a project into a series of lessons learned. These insights will help you avoid some of the project stumbling blocks faced by our libraries and create an environment for success for your own innovative program pilots.

As the projects unfolded, several program-specific themes arose across multiple projects. We have compiled additional lessons learned based on those themes, in four areas: building community partnerships, redesigning space, engaging teens and tweens, and using virtual reality.

COMMUNITY PARTNERSHIPS
WOONSOCKET HARRIS PUBLIC LIBRARY
GREENVILLE PUBLIC LIBRARY
PROVIDENCE COMMUNITY LIBRARY
WARWICK PUBLIC LIBRARY

SPACE
WESTERLY LIBRARY & WILCOX PARK
WOONSOCKET HARRIS PUBLIC LIBRARY
ADAMS PUBLIC LIBRARY
GREENVILLE PUBLIC LIBRARY

TEEN CREATORS
ADAMS PUBLIC LIBRARY
PROVIDENCE COMMUNITY LIBRARY
WARWICK PUBLIC LIBRARY
WESTERY LIBRARY & WILCOX PARK

VIRTUAL REALITY
PROVIDENCE COMMUNITY LIBRARY
WARWICK PUBLIC LIBRARY
GENERAL BEST PRACTICES

Branding your project
Start with a catchy project name or tagline, and create branded materials that promote the project and the library. Studio Rhode libraries created everything from t-shirts to bookmarks to promote their projects.

“Old School” Communication Tactics
Social media is an important part of any library marketing strategy, but it should not be the only way you connect. Overwhelming numbers of Studio Rhode program attendees learned of the programs by talking to library staff, from newspaper and radio ads, and from libraries’ print newsletters—not from social media.

Integrate Technology into Existing Programming
If new technology seems overwhelming or it is unclear how it fits in at the library, think of ways to integrate new technology into popular, well-established programs. If you have a strong knitting program or active book clubs, consider how technology can enhance those programs. Tools are great, but if they don’t have a purpose then what’s the point?

Create the Environment for Success
Take advantage of your current assets and successes to potentially draw larger, more consistent crowds. Tap into existing demands by pairing new programs or services with something established and popular. Promote your project or set up equipment in high-traffic areas to increase awareness and participation.

Anticipate Scheduling Problems
Delays and scheduling problems will happen. To various degrees, every one of our Studio Rhode libraries had to revise their schedules because of other library events, community partners, or circumstances beyond their control—from the weather to the feeding schedule of zoo animals! Plan for less-than-best-case scenarios from the outset and approach your project with flexibility and a sense of humor.

Pivot if Necessary
Sometimes, and despite best efforts, a project as planned is too big—or ultimately not possible due to uncontrollable new circumstances. It’s okay to take a breath, step back, and break the project down into smaller efforts. Starting with something smaller or simpler keeps the project momentum strong.

One Thing at a Time
The project will likely change over time, but remember that new ideas can be saved for the future. Patrons or library staff may be excited and share lots of additional ideas, solutions, or additions to the project. Do not fret about earmarking new project ideas for later; focus on the task at hand and give it time to take hold.

Paper Is Sometimes Best
Use paper surveys after your programs or workshops to gather feedback rather than providing a link to an electronic survey. Projects that used paper surveys, done in real-time, had much higher survey completion rates than those that asked for online surveys to be completed after the fact.

The Buck Stops With...Who?
New projects will require dedicated staff time for purchasing materials, researching, developing and running programs, finding volunteers, organizing partnerships, and doing outreach. The team leader should assign point people to project activities and most importantly, check-in with them throughout the project window. Many of our project teams quite smartly divided project work amongst members. A lack of clear team leader, no communication plan, and general staffing issues, however, stymied several teams who did not necessarily have a contingency for completing activities in these circumstances.
COMMUNITY PARTNERSHIPS

Put Yourself Out There
The Woonsocket Harris Public Library found that hosting in-house events drew some people but that they reached many more by leaving the library and meeting the community where they were. They reached out to partner organizations and attended over twenty-five community events during the project window! This lead to more interactions and a stronger sense of community for the library. You can also solicit feedback and suggestions for deeper and new partnerships. Partners may share a common goal with you, but may not realize that the library can provide something they need. Reaching out to non-profits, local businesses, universities or even other town or city departments can result in new partnerships, and often one community partner can connect you to more.

Successful Partnership is a Two-Way Street
The most successful partnerships will benefit both parties, adding value to each organization. Cross-promoting events is a simple example of the mutual benefit of partnerships, but benefits can go deeper than simply sharing a space and an audience. Successful partnership allows both the library and the partner to expand their mission or reach new audiences. Providence Community Library partnered with the local zoo and the RI State House to create 360 degree videos of locations to enhance their summer reading program, while simultaneously providing increased awareness of those institutions to the community.

Seek out Experts
Finding partners who are subject experts, whether those experts are free or paid, can alleviate considerable stress and time as librarians do not have to scramble to learn new skills or lead programs on topics about which they are not experts. Surveys of program attendees at the Greenville Library showed high levels of satisfaction and eagerness for additional programs when expert presenters were tapped to deliver garden related programs. Libraries that worked with expert consultants also credit their expertise as a major factor in their success, as in the case with Warwick Library’s partnership with RI Virtual Reality.

Expect Some Loss of Control
Despite the many benefits of community partnerships, bringing in outside partners on projects will mean that you will lose a certain amount of control over your project. Scheduling programs can be difficult when juggling multiple partners, and you run the risk of cancellations or no-shows when you have programs run by outside groups. Both Greenville and Providence Community Library, for example, had to alter their project timelines to accommodate their partners’ schedules. Also, if you rely too heavily on a partner to provide services or training, make a plan to sustain the project if or when they are no longer involved.

SPACE

Put Wheels on it
Create a space that allows for a dynamic flow, fits a variety of flexible uses, and supports spontaneous change. Wheels are an incredibly simple yet highly impactful way to create such a space. Flexible, mobile furniture and storage allowed several of our libraries to transform underutilized spaces into true multi-purpose spaces, without losing any of the original function of the space. Central Falls’ Teen Space on Wheels is a great example of how to improve the use of limited space with a flexible, mobile solution.

Remodel or Redesign an Existing Space
Sometimes, having a dedicated space can help define and enhance programming. The Westerly Public Library has more space, rather than less, when compared with the average library. It may sound like a dream, but that also meant that some spaces were poorly defined and underutilized. Working with a designer and bringing together all their new resources into a dedicated maker area transformed an overlooked corner of the library from a very basic makerspace into The Boiler Room, a well-outfitted cohesive space for digital learning and making, in which the library has been able to host a variety of traditional and technology-enabled arts and crafts-themed programs.

Libraries are more than buildings
Reimagine what you consider “your space” when contemplating your library. Look outside the walls to the grounds and surrounding areas, as the Greenville Library did when implementing their community garden. Consider utilizing sidewalks, lawns, and atria. After considering your library grounds, look beyond that to your community and imagine what can be possible when library programs and services can happen anywhere. Woonsocket Library traveled out into their community to gather oral histories for their project, and as a result talked with hundreds of community members that were not regular library users.

Consider Staffing Needs for New Spaces
Expanding the library space can be an exciting idea but with new staffing requirements, it may not be feasible. Central Falls, Woonsocket and Greenville were all excited to transform a previously underused room, head out into the community and use their outdoor space, respectively, but each found they lacked the staffing to adequately support this new work. Plan for changes in staffing and consider expanding opportunities for volunteers and interns.
**TEEN CREATORS**

**Have a Backup Project on Hand**
Teens love choice so if the first project is not something they find interesting, be flexible. Across projects that sought to engage teens, library staff needed to scrap at least one initial plan because their audience was not engaged. Library staff at Central Falls and Westerly were flexible enough to acknowledge their plans weren’t working and move on to something else, which helped keep teens interested and coming back.

**Empower Teens**
Surveying teens about what they did and did not like about a program or service is a great place to start to hear the voices of your teen patrons. Gathering and using feedback from teens about what they want from library services is key. Take teen empowerment a step further by having a Teen Advisory Board, which can help make important decisions about teen services. Tap into teens existing passions, interests and networks; when teens are excited about something already, they’ll show up.

Warwick Library centered their Spring Break Creation Camp around Minecraft, having teens build a to-scale 3D replica of the library in the already-popular game, and had to enable a waitlist to accommodate all the interested teens.

**Relationships First**
Focusing on relationships first with teens is an important way to stem negative behaviors and increase engagement from teens. Using professional development resources from the Young Adult Library Association, the Central Falls Library explicitly worked as a team to improve their relationships with teens and felt that was responsible for much of their program attendance.

**Less Structure = More Experimentation and Exploration**
After teaching the basics, allowing teens to play around can lead to authentic and valuable learning as they can explore at their own pace and allow their own interests to drive their experimentation. Some of the most exciting and authentic learning that happened in Central Falls arose when teens were allowed the freedom to play, experiment, and create with relatively no guidance.

**Kids and Tweens vs. Teens**
What does not work for teens can work very well for kids or tweens. Both Central Falls and Westerly found that the exact formal programs they tried unsuccessfully with teens went over incredibly well with children and tweens. Those are future teens, so build positive relationships and engage them young!

**VIRTUAL REALITY**

**Start with a Purpose**
Virtual Reality (VR) equipment is shiny and exciting, but without a reason to have it in your library, it may end up un- or-under used. Consider ways that VR can enhance existing programs. The Warwick Library used VR to supplement a book club, Providence built in a connection to the summer reading program, and both libraries offered new opportunities for digital creation. VR can promote empathy, expand the world of the user and offer immersive and memorable learning experiences.

**Consider the Side Effects**
Motion sickness, headaches, and other physical side effects may accompany the use of virtual reality equipment. Consider age limits. The Warwick Library created a waiver with their city’s legal department so that everyone using the equipment was aware of the potential side effects. And if you decide to create your own 360-degree content, as Providence did, use higher quality equipment that can be held still using a tripod or dolly.

**Weigh Expense, Quality, and Purpose**
Equipment for virtual reality can get very expensive and you may find yourself asking if you really need to spend that much on equipment. The answer is often, yes—if you want to do it right. To process 360-degree videos or support a fully immersive VR system you need a computer with a powerful processor. If you are unsure what equipment to buy, consult the budget documents from Providence and Warwick (http://studiorhode.ri.gov) or consult with a local expert.

**Explore Free Experiences**
Many high-quality free virtual reality experiences are available for any type of virtual reality system you plan to use. The Oculus Experiences store and VIVEPort both have many free experiences for download, and companies like Google, BBC, *New York Times*, and *The Guardian* are producing high-quality educational experiences. You can also peruse YouTube 360-degree videos to find user-created 360-degree experiences or upload your own 360-degree content there.

**Buy Extra Batteries—and Storage**
If you are interested in filming in 360 degrees, your camera may use a lot of battery power. Providence Community Library found that a single battery gave only about an hour of filming and recommends purchasing additional batteries and a portable charging dock. Similarly, 360-degree video files are will require external storage.
**Acknowledge the Learning Curve**

Though the Studio Rhode Projects using virtual reality had relatively tech-savvy staff working on their projects, the learning curve was nonetheless greater than they anticipated. The Warwick Library hired a paid consultant to do initial set-up and train the staff and felt this up-front expertise truly helped the project succeed. The Providence Community Library did not hire any consultants—and wished they had. If you cannot afford a consultant, provide ample staff time for learning new equipment and programs.

**Plan for Sanitation**

Remember to build a line-item in your virtual reality budget for wipes or masks. Your community members will be using the same VR headset repeatedly, and sanitation is a concern. Buy disposable facial wipes or clean the headset between uses with antibacterial wipes; disposable stick-on masks are also made specifically for virtual reality headsets.
You may be interested in implementing a similar Studio Rhode program or innovative project at your library but may not have the money, staff time, or space.

DON’T HAVE ENOUGH MONEY?

➔ Use Technology You Already Have
There’s no need to buy new fancy equipment to replicate many of the projects here. A story collecting project can be done cheaply with a laptop or computer with webcam and microphone. An unused or under-utilized tablet can be pre-loaded with project-related apps and loaned out to patrons. Think about what you would like to accomplish, and then think creatively about what you already have.

➔ Explore Engaging, Low-cost Solutions
Not all engaging technology programming costs loads of money. Green screen programs were a hit across several Studio Rhode projects, from teens to local business owners. Green screens are inexpensive, easy to use, and incredibly versatile. Likewise, a library interested in virtual reality may not be ready to purchase a fully immersive system, but could start with inexpensive, easy-to-use Google Cardboard until they can secure funding for the real deal. And free tools like Audacity, Gimp, and Shotcut can enable anyone to create digital content without spending anything.

➔ Share Amongst Libraries
If you are active in your professional community, look out for new and exciting technology in other libraries and reach out. Libraries have a strong ethos of sharing resources, and though there may not be a formal system for technology lending in your county or state, other libraries may be willing to let you borrow their equipment.

➔ Leverage Partnerships
Look at the assets your community partners bring to your project, and utilize them wherever possible. From free labor in assembling equipment to free advertising on local radio, our libraries saw a significant cost savings from working with partners.

➔ Apply for Multiple Grants
Some projects will always have a massive startup cost or require more money than the maximum awarded. Don’t be afraid to apply for multiple grants to supplement a project. Securing additional funding can result in projects that more closely match the original vision.
DON’T HAVE ENOUGH STAFF TIME?

➔ Leverage Partnerships (Again!)
Once again, look to your community partners and utilize them to run programs or to connect you to volunteers. Repeatedly throughout the Studio Rhode process, successful community partnerships allowed libraries freedom to offer more high quality programs, to reach new people and to achieve their project goals, often while mitigating staff time spent on the project.

➔ Utilize Library Graduate Students
If you have a university nearby that has a library school, reach out to them. Many library graduate students will need to earn credit through field experience or are simply looking for volunteer opportunities in a library. If there is no a library school program near you, consider other departments with subject expertise, like computer science or music. Many state universities have a Master Gardener group, for example, that would be happy to work with libraries to provide free programming.

➔ Hire Someone on Contract
If money allows it, hire an expert on contract to support your project. If your project requires a certain level of technical or subject expertise, do not spend valuable staff time trying to learn complicated skills on your own.

➔ Focus on Teamwork
Designing an interdepartmental program can be very rewarding, as it builds team spirit and extends the impact of a project to a wider selection of the community. It also means there are more project team members to share the workload. That said, bigger teams also mean more working parts, so plan to check in with your team and have realistic expectations of what team members can contribute. Work together, and get buy-in from library management so you can be sure everyone is supported.

DON’T HAVE ENOUGH SPACE?

➔ Outdoor Programming
Most libraries have outdoor spaces as well as indoor that they can use when weather permits. Do not just think about what your outdoor space will look like, consider how it will function with key principles like access, comfort and multiple uses.

➔ Take Yourself into the Community
Perhaps you do not have much programming space in your library, but the library’s mission need not be contained within the four walls of your building. Libraries increasingly travel out into other community spaces to provide services and outreach. Bring plenty of branded swag so that all the new community members you are engaging with will remember that you came from the library!

➔ Be Flexible with Time and Space
Consider spaces that you can serve multiple purposes at different times throughout the day. Although many library spaces are dedicated to a single function, having portable storage, movable furniture and an attitude of flexibility can help to maximize a smaller space. Blocking out dedicated times in multi-use spaces for certain activities can provide consistency for a project, while still leaving the space available for other uses.

➔ Look at Existing Spaces with Fresh Eyes
Even if you think you are using all your existing space, you may be missing opportunities for additional uses that could be added through relatively simple changes. The Woonsocket Library took a quiet study room and converted it into a multi-purpose creation space by swapping in wheeled tables and chairs, and adding studio features like soundproofing, a green screen and technology equipment. The space can still be used as quiet study space, of course, but now it can also be used for so much more.

➔ Utilize Professional Resources
Visit our website (studiorhode.ri.gov) for professional development resources on using your space smartly. As so many projects focused on innovative use of space, an accompanying professional development series also highlighted this topic. Creative Placemaking—turning outdoor spaces into active community hubs—can help you reexamine the space outside your library, while learning more about the Small Libraries Create Smart Spaces project may inspire you to rethink your interior.
STILL NOT CONVINCED?
Whether your library is large or small, you can design sustainable, impactful projects that rethink library services. Start with a community need, and let your imagination guide you through the design process. Build a plan to evaluate your project with a variety of metrics, and synthesize the different outcomes of your project to assess the impact over time. Consider some of the lessons learned as you navigate your project so that you may avoid some of the challenges our libraries faced and create an environment for success.

If you lack the money, time and space to execute a new program or service, do not abandon your idea. Start small, by imagining the simplest thing you can do that will have a large impact. It costs nothing to move furniture, but a new configuration may have a big effect on the way community members utilize services. Community partnerships can alleviate the burden on staff time. Technology does not have to be new or expensive to provide a meaningful experience to users of all ages. Use your imagination when you consider existing spaces, technology and programs to find begin making simple—but potentially impactfull—solutions.

As our world changes, we need these vital centers of knowledge to keep up with the times, so they can continue to be places of learning for future generations.

— GOVERNOR GINA RAIMONDO
THE STUDIO RHODE CHALLENGE

The following case studies offer specific project models from libraries large and small that you may wish to follow or adapt as you consider new ways to embed technology, use your space, and engage community partners.
ROUND I
The first Studio Rhode challenged libraries to design projects using the three core principles: community concierge, digital creation studio, and new tools. The first Studio Rhode challenge awarded two libraries, Westerly Library and Woonsocket Harris Public Library, a total of $114,000 to recreate a new library space as well as a suite of Apple products (iPad Pros, iPad Airs, Apple TV, iMacs/MacBook Airs, charging carts) to support better usage of that space. The projects undertaken in this first round of Studio Rhode are meant to be ongoing.

ROUND II
In this second challenge, applicants proposed how their libraries would reimagine their role as a digital community hub for multigenerational and inclusive learning in a fashion that best meets the needs of their community.

This second Studio Rhode challenge awarded four libraries up to $10,000 each to purchase equipment, supplies, or services to pilot a new program or to strengthen an existing one. This round of Studio Rhode was designed to support one short-cycle (three- to four-month) pilot project.
Everyone is an Artist

STUDIO RHODE IDEA

The Westerly Library & Wilcox Park’s Studio Rhode idea sought to connect the library’s mission and work more closely to the town’s downtown art scene. The Westerly Library & Wilcox Park mission is: to “stimulate intellect and spark imagination through access to literature, information, nature, and the arts” and the Studio Rhode project they piloted worked to promote local artists and help community members realize that everyone is an artist in their own way. Westerly’s Studio Rhode project worked to attract non-traditional library attendees and reach populations that may not realize that library is a place to create and collaborate. The ultimate Westerly Studio Rhode goal is to cement the library’s place as a technology and innovation hub.

Fast Facts
- Library Budget: $3,741,200
- Population Size: 22,787
- Library Spending per Capita: $164.22
- Median Community Income: $60,800
- Median Community Age: 46

Full Time Librarians: 7
Total Staff: 33

Did You Know?
Westerly is currently known for its textile industry, tourism, and beaches, but the city was historically known for its granite. Westerly Library & Wilcox Park originally had a bowling alley, gymnasium, art gallery, museum, and meeting space for the Grand Army of the Republic.
PROJECT DETAILS

Westerly assembled an interdepartmental team from adult and teen services, reference, and technology to put together a project that would support the art community in their town while inspiring library users to create art themselves. The project ran from June through October 2017 and integrated new technology into current programming— their Animation Nation group for tweens and teens and their very active fiber arts group—while also launching a few new programs, including a makerspace, oral history collection, and Westerly Arts and Media (WAM!).

As part of Round I of Studio Rhode, the library received a suite of Apple products that included ten iPad Pros with Apple Pencils, thirty iPad Airs, AppleCare+ for all products, one Apple TV, one iMac, one MacBook Air, a variety of accessories, a lock and charge storage cart, and accompanying Apple professional services. In addition to this equipment, they received matching funds to redesign their makerspace, using those funds to purchase reconfigurable furniture, tripods, acoustic screens and paneling, and shelving. With the remaining funds, they purchased equipment for the revamped makerspace, including a Glowforge engraver, VR equipment, 3D printer, audio/visual equipment, conversion equipment, and stop-motion station.

During the pilot, the library successfully integrated new technology into the existing programs as planned. Animation Nation, a Lego stop-motion movie-making program, ran successfully with tweens, while it had to be adapted to a less structured program for teens; the tween program culminated in October with a movie premier for the collaborative stop-motion film Build a Better Monster. The integration of iPads into the already robust fiber arts group (which does crochet and knitting) was well received, and additional workshops on using Ravelry to find and share patterns were welcome.

The new programs were more challenging to implement, as the library simultaneously celebrated their 125th Anniversary, which drew significant staff and volunteer time away from Studio Rhode. The project team also found a dearth of community partners and artists willing to contribute to the project. The original concept for WAM! envisioned a series of live-streamed and archived artist talks, but as a result of the challenges, the team instead created the #ArtistofWesterly hashtag, along with a series of Pop-up Museums to showcase local artists and library patrons’ artwork.

The library also renovated an underutilized existing makerspace into a more fully realized and comprehensive maker area they called the “Boiler Room” to support the project’s goal of encouraging creativity and creation in their community.

TIMELINE / 2017

<table>
<thead>
<tr>
<th>MONTH</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>JUNE</td>
<td>First Pop-up Museum invited community members to share artwork</td>
</tr>
<tr>
<td>JULY</td>
<td>9-week Animation Nation program for tweens and teens kicked off</td>
</tr>
<tr>
<td></td>
<td>Fiber Arts group began regularly incorporating iPads into programming</td>
</tr>
<tr>
<td></td>
<td>Second Pop-up Museum shared “Build a Better World”-themed art</td>
</tr>
<tr>
<td>AUG</td>
<td>Third Pop-up Museum ran with the theme “The Beach”</td>
</tr>
<tr>
<td></td>
<td>Michael Barber interviewed as the first #ArtistofWesterly</td>
</tr>
<tr>
<td>SEPT</td>
<td>Trailer and movie poster for Build a Better Monster short film created</td>
</tr>
<tr>
<td></td>
<td>Ravelry workshop taught fiber arts group to search for share patterns</td>
</tr>
<tr>
<td></td>
<td>Fourth Pop-up Museum was themed “Art!”</td>
</tr>
<tr>
<td>OCT</td>
<td>Ordered furniture, acoustical screen, shelving and storage, acoustic art panel for the revamped makerspace, called the “Boiler Room”</td>
</tr>
<tr>
<td></td>
<td>Build a Better Monster Animation Nation film premiered with fifty in attendance</td>
</tr>
<tr>
<td></td>
<td>Audrey Eberle became second #ArtistofWesterly</td>
</tr>
<tr>
<td>NOV. +</td>
<td>The Boiler Room Makerspace hosted its grand opening event</td>
</tr>
<tr>
<td></td>
<td>Library offered workshops in the new space, like Social Media for Artists</td>
</tr>
<tr>
<td></td>
<td>Free-Create Fridays launched, allowing community members to experiment with creating their own pieces of art using Tayasui Sketches on iPads</td>
</tr>
<tr>
<td></td>
<td>Pop-up Museum shifted to reflect project change from Everyone is an Artist to Everyone Can Create with the theme of “I Made This”</td>
</tr>
<tr>
<td></td>
<td>John Patsfield became third #ArtistofWesterly</td>
</tr>
<tr>
<td>SPACE: THE BOILER ROOM</td>
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</tbody>
</table>

The Westerly Public Library does not want for space as many libraries do: it has a gallery, auditorium, and the attached Wilcox Park. The library opted to revamp a corner of the library that had been designated a “makerspace” but was not yet fully realized. The newly renovated space was christened the Boiler Room, as an homage to Stephen Wilcox, an industrialist and inventor who donated the original library building to the town and also invented a safer boiler.

The Boiler Room is a flexible, reconfigurable makerspace with a variety of digital tools and fabrication equipment. Because the Boiler Room was open and adjacent to library quiet space, Westerly installed glass doors to buffer sound from the makerspace while still allowing people to see what was happening inside—and perhaps be tempted to come in and create something themselves. The library bought tools including a Glowforge engraver, VR equipment, 3D printer, audio/visual equipment, conversion equipment, and stop-motion station, while also housing the suite of tools from Apple in the new space.
The original Studio Rhode proposal was called *Everyone is an Artist*, but throughout the project, the team found that many local artists were hesitant to be labelled as such, as were library users participating in art-focused programs. For that reason, they shifted focus away from the term “artist” and toward the term “creator.” This newly designed, state-of-the-art space dedicated to creation perfectly captures the ethos that *Everyone Can Create*.

**TEEN CREATORS: EVERYONE EXPLORE**

Westerly’s project also sought to engage tweens and teens in creating through *Animation Nation*, a lego stop-motion movie-making program. Before receiving iPads and support from Apple, this program was done with one camera that participants had to share. With the new iPads, more children and teens were able to participate at once. It allowed for some kids to take the pictures for the film while others would be building the scenes. To create the videos they used free programs: Audacity for the audio, Gimp to modify images, and Shotcut to edit the film.

The culmination of *Animation Nation* was a short film produced over the course of the summer. The tweens group had consistent attendance throughout the summer and was able to collaboratively create a short monster film, *Build a Better Monster*, which premiered around Halloween. There were about fifty people in attendance at the viewing event, as the tweens brought their family and friends to celebrate their creation.

The structured program for *Animation Nation* failed, however, to capture the same interest for teens as it did for tweens. Attendance was spotty, teens showed little enthusiasm for creating a collaborative film and teens’ abilities and interests were quite varied. To address this, the library opted to pivot to more exploratory programs for teens, allowing for independent play and tutoring for teens through *Animation Nation*.

In the Boiler Room Makerspace, Westerly hosted an iPad Petting Zoo program for teens to give them another chance to dig into Apple apps like Swift Playgrounds (coding), Sketches (drawing), and Garageband (music). As with *Animation Nation*, teens enjoyed the chance to explore and reported feeling more knowledgeable about using iPads and their resources, despite the absence of structured lesson plans.

**Still from *Build a Better Monster* film**

**Stop motion station in the makerspace**

**Animation Nation tweens’ film premiere drew a crowd of over fifty viewers**
IMPACTS AND SUSTAINABILITY: ONE YEAR LATER

Westerly’s Everyone is an Artist project had significant challenges in realizing its original project vision. The 125th Anniversary celebration drew away significant staff, volunteer, and community partner time. Many partnerships with artists did not come together as they had planned, and several ambitious parts of the project had to be altered. Additionally, some team members were pulled away from this project because of staffing changes.

The project team approached this project with a spirit of flexibility from the start, revising project activities to make them more practical and achievable. One goal was to collect oral histories from the community in Westerly, however because they did not have a focus for their oral history collection they found it difficult to find volunteers to both share and collect stories. They also noted that this activity’s connection to the overall project was tenuous, so stopped collecting stories after an initial two were collected.

The library also pivoted away from their original WAM! Project, that would invite featured artists to give talks and display their works. The library planned to use the new technology to document the artists’ works and livestream and archive their talks. This project was not feasible given logistics, so the library pivoted to activities with a lighter lift. They decided to share the work of local artists through interviews and photographs using the hashtag #ArtistofWesterly. They also held five thematic Pop-up Museums—based off an idea from Santa Cruz Museum of Art and History—at which community members could bring in any artwork or craft they had made and add it the museum showcase. From the Pop-up Museums, the project team developed the idea for Free-Create Fridays to incorporate their new technology with the same spirit of creation and sharing.

The project activities that applied the new Apple technology to existing programs were generally successful. Surveys showed that adding the new tools to the tween Animation Nation program and the Fiber Arts programming was well-received by participants.

After the transformation of the makerspace into the Boiler Room, the project team started using the space for more iPad-centric technology workshops. The feedback for all these programs was very positive, with more than half of attendees reporting learning something new and being more comfortable with the new technology as a result of attending. Program attendees suggested the library offer more general iPad classes, virtual and augmented reality technology, identity security trainings, and conversation technology. A year later, the makerspace is being used for library programs and by community groups, including Streamline Robotics, which comes to 3D-print robot parts. With the project window for Everyone is an Artist/Everyone Can Create closed, the library plans to engage in more technology-focused workshops in addition to the art-and-crafts focused programs they created for this project to better reflect community demand.

Throughout the Studio Rhode project, the library discovered that the public really wants to be connected to innovation, whether it is through learning to use new technology or making something in a hands-on program, and so they continue to explore new programming in those areas.
STUDIO RHODE IDEA

Woonsocket Harris Public Library partnered with the city planning department to collect the personal stories of two hundred of their residents of different generations, backgrounds, income levels, and abilities to help the city develop their strategic plan, known locally as the Comprehensive Plan. The library also created a Studio Rhode Creation Lab to re-imagine a quiet study room into an innovative studio to house their new equipment and offer expanded technology programming. The project is called My Woonsocket Life.

Did You Know?
The Woonsocket Harris Public Library was originally known as the Harris Institute Library, and was the first library in Rhode Island.

Fast Facts
- Library Budget: $1,115,784
- Population Size: 41,186
- Library Spending per Capita: $28.13
- Median Community Income: $37,325
- Median Community Age: 38

Full Time Librarians: 7
Total Staff: 24
PROJECT DETAILS

The city of Woonsocket's City Planning Department had identified a critical need to redefine the identity of the community. Once known as a tightly-knit, vibrant mill town, economic downturn and a changing population have left the city without a cohesive identity. To address this, the project team proposed to use a suite of tools from Apple and additionally purchased audio and video equipment to collect stories from residents of different generations, income levels, and backgrounds. The stories focused on community members experiences living in Woonsocket. To gather them, the project team asked:

- What is a favorite memory of living in Woonsocket?
- What do you like about living here?
- What do you find challenging?
- What would you change about the city?

This pilot ran from June to October 2017, though project activity continues up to time of this toolkit's publication. During the project period, the library hosted six internal events, including a kick-off and several story-collection events. The library reexamined their approach after noting that the in-house events were poorly attended, and opted instead to focus on attending community events. Following this shift, the library attended twenty-five different community events, where they collected the majority of their stories, connected with hundreds of community members, and distributed branded materials to promote the library and the Studio Rhode project.

Collected stories were transcribed for closed captioning and edited by library staff and University of Rhode Island graduate students. The RI Office of Library & Information services connected the library and the graduate students when it became clear that extra transcription help was needed. When completed, stories were uploaded to the library’s YouTube page. Because of the significant time to complete a story, work on transcribing and editing the backlog of story videos continues.

During the project, the library also renovated a quiet study space into the Studio Rhode Creation Lab, adding soundproofing, lighting, flexible furniture, and technology to create an inviting, multi-use space.

As part of Round I of Studio Rhode, the library received a suite of Apple products that included ten iPad Pros with Apple Pencils, thirty iPad Airs, AppleCare+ for all products, one Apple TV, one iMac, one MacBook Air, a variety of accessories, a lock and charge storage cart, and accompanying Apple professional services. With additional grant funds, the library purchased filming equipment to support the story collection project, as well as furniture, decor, technology, and new signage for the Creation Lab.

COMMUNITY PARTNERSHIPS: ON THE ROAD WITH STUDIO RHODE WOONSOCKET

Community awareness was key to the success of My Woonsocket Life. The Woonsocket Harris Public Library was able to spread their story collection idea by putting themselves out into the community and forming partnerships as a result.

The project began as a partnership with the Department of City Planning, to help with the department’s goal of rebranding the city’s identity. Other city departments worked with the library throughout the project to help connect the library to events and potential storytellers, including the Woonsocket Police Department and the Woonsocket Education Department.

Other community partners included community non-profit organizations NeighborWorks, PACE, Community Care Alliance, the Museum of Work and Culture, and Landmark Hospital. These organizations helped by providing space at community events, community contacts for story collecting, and volunteers to type transcripts or hand out flyers—as well as by promoting the project on their social media sites and amongst their employees.

TIMELINE / 2017

JUNE
- Team began promoting project by creating video using donated drone footage of Woonsocket, drafting a press release, and posting to social media
- Local radio station began airing promotion for My Woonsocket Life
- Library threw a kick-off party and scheduled in-house events

JULY–OCT.
- Story collection continued at community events including AutumnFest, Story Safari, club meetings, city parks, vendor fairs, and church fairs
- Working with URI Library school graduate students, team edited and transcribed videos for closed-captioning and uploads completed stories to library YouTube channel

ONGOING
- A local graduate student designer worked with the library to plan and purchase materials for the Studio Rhode Creation Lab renovation
- Story collecting continues throughout the year; editing and transcribing continues on backlog of story videos
- Library continues its partnership with city planning department, as they await the 2018 election with data and videos ready to share
- Community partners continue working with the library and cross-promoting events

The newly renovated Creation Lab had its grand opening, followed by use for a variety of purposes including coding classes for children, art classes for teens, knitting classes for adults, and green screen classes for all.
The library formed a fruitful partnership with the local radio station, WOON 1240 AM, which still has a broad listenership across the city. The station donated prime commercial airtime to the library to advertise their project and allowed the library to use their mobile van unit so that they could collect stories out in the community more easily.

The library community, including the Board of Trustees and library users, also helped to promote My Woonsocket Life. The Board of Trustees set up a flash story collection event at a local restaurant and invited community members to join. One library member donated hundreds of hours of drone footage, which helped create a movie clip the library used to promote the project.

SPACE: REBRANDING A QUIET STUDY ROOM
The library redesigned an underutilized 200-sq-ft quiet study room into the Studio Rhode Woonsocket Creation Lab, an innovative, inviting, lounge-style studio. The Creation Studio now has flexible, movable furniture, including a table that can be reconfigured to accommodate a variety of uses and comfortable wheeled chairs. There are movie lights, sound cancelling panels, plants, blinds, and an empty wall that can be used as a green screen. The redesigned room can serve multiple uses: recording video and audio, and holding programs and trainings, while still providing space for tutoring and private study.

Since the close of the Studio Rhode pilot window, the Creation Studio has been used for a number of new library programs including: Scratch Jr. coding classes for children, anime art classes for teens, knitting classes for adults, meme-making with iPads, green screen classes, Tech Tuesdays, and e-book downloading. Community members and groups have also been using the room—from tutors working with students to a local businessperson who filmed a commercial using the green screen.

My Woonsocket Life also prompted the library to expand outside the library walls by regularly going out into the community to collect stories. They used the tagline “On the Road with Studio Rhode Woonsocket” when they were out in the radio station’s mobile unit to get people’s attention and handed out branded project materials to connect the project back to the library.

IMPACTS AND SUSTAINABILITY: THEN AND NOW
The goal of My Woonsocket Life was to collect 200 stories from diverse voices within the community in order to help redefine the city’s identity in a more positive light. Since the start of the project the library has collected seventy-five stories, with story collection ongoing. By focusing on the service the videos would provide to the city, the library found that people were likely to overcome their initial camera-shyness.
I think we are headed in a better direction. We have good systems in place and we will do what we need to do to bring Woonsocket back to where it used to be.

— Meka H.

It is encouraging to see that our community is involved in this project. It is important to preserve our history (memories) for not only being available for the future, but also for our youth to be exposed to our history now.

— Mayor Lisa Baldelli-Hunt

The project team learned that editing the footage and transcribing stories so they would be accessible for all viewers took significantly more time and energy than they had anticipated. They began working with the University of Rhode Island Graduate School of Library and Information Studies, who connected them with graduate students to edit and transcribe videos. This relationship continues, as the library continues work on editing and transcribing a backlog of stories to be added to the library's YouTube channel.

The biggest successes of this project came from their attendance at over twenty-five community events and the partnerships they built at those events. Meeting the community where they were helped to create a sense of shared purpose. The library received many phone calls and emails about the project from people who heard the commercials on the radio or had spoken to library staff at an event. Fully one-third of community members who opted to share their story did not have a library card or were not regular library users, showing that the library formed connections with new potential library users by putting themselves out into the community.

Community partnerships have persisted with a cross-sharing of events on social media and continued conversations about how best to help each other. For example, NeighborWorks Blackstone River Valley, a local community development organization, connected the library to local people who have offered free- and low-cost programs to the library, included artists who have displayed their works in the gallery area and a poet who taught poetry/podcasting classes. NeighborWorks also connected the library with local businesses, as part of their mission to develop a community-wide support system for business and community organizations. One such local business offered their services as a fundraiser for the library, generating $265.00 towards a new outdoor sign. WOON 1240 continues to support the library with free on-air radio advertising, and the library records a weekly spot to advertise their upcoming programs.

Since its opening in June 2017, the Studio Rhode Creation Lab has been used for a variety of library and community uses, as a meeting room, tutoring space, recording studio, and even a meditation space.

One important desired impact of My Woonsocket Life was to help redefine the city’s identity in conjunction with the city planning department. This process has been delayed due to staffing changes at the city's department that started soon after the project began. The library is working with an interim city official, and following the 2018 election, will work with the newly appointed director to share the wealth of information they have collected from the people of Woonsocket. In the meantime, they continue collecting and uploading stories, exploring new uses for their space, and strengthening the new partnerships they developed during this project.
STUDIO RHODE IDEA

The Adams Public Library in Central Falls is a small urban library that is tight on space. As such, it has no dedicated teen space for the many teens who use the library in the afternoon. To address the need for teen engagement within the confines of limited space, the Adams Public Library in Central Falls piloted its Teen Space on Wheels, which provided dedicated teen tech times and equipment in the library’s multi-purpose space. Using a variety of mobile digital creation and fabrication equipment, this project sought to be a model for libraries who may not have space to dedicate to teens but still want to engage with their teen community in a way that increases their knowledge of and confidence using digital tools.

Fast Facts
- Library Budget: $248,996
- Population Size: 19,379
- Library Spending per capita: $12.83
- Median Community Income: $28,901
- Median Community Age: 28.6

Did You Know?
- Central Falls was at one time the most densely populated city in the United States. The city gets its name from a waterfall on the Blackstone River.
Teen Space on Wheels was part of Round II of Studio Rhode, with the project running during the spring and summer of 2018. The original plan for the project, designed by the library director and teen services staff, proposed using the library multi-purpose space for digital-literacy programming starting in March, with time to explore the different equipment and develop a better understanding of the teens’ interests and knowledge. Delays in receiving the grant funds meant that project-related activities did not begin until June, however, resulting in a very compressed timeline.

Throughout the month of June, the library offered teen programs on Monday, Wednesday, and Friday using the Teen Space on Wheels and focusing on a different topic each week. First they offered “Having Fun with 3D Printing,” in which teens used website ThinkShare to select and print 3D printed objects. Next was “Exploring 3D Pens,” in which teens used 3Doodler pens and plastic filament to create 3D objects. The final topic was “Green Screen Magic,” in which teens were able to learn how to take still photos and video and manipulate the background using a green screen app.

As the library offered programs for teens, they noticed increased interest in the technology tools from children who wanted to join the teens in the multipurpose room. To meet this need, they began offering Kids Tech Time. Using some of the technology from the Teen Space on Wheels and led by a volunteer from the University of Rhode Island Graduate School of Library and Information Studies, they added one session of Kids Tech Time to each week’s schedule of events.

To complete this project the library purchased two computers, and variety of digital creation and fabrication equipment including green screen, 3Doodler pens and plastic spools, Little Bits Synth Kit, Chibitronics (Chibi Lights), LED Circuit Stickers STEM Starter Kit, iPads with tripods and apps, Silhouette CAMEO 3 Bluetooth Starter Bundle with self adhesive vinyl, one 3D printer, and PLA Spool Filaments. Finally, to round off the Teen Space on Wheels, they needed the wheels and so purchased a library shelving cart with three flat shelves.

### Technology Expenditures

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology equipment &amp; digital fabrication supplies</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

**Total project budget:** $10,000

**SPACE: THE WHEELS ON THE CART GO ROUND AND ROUND**

Rethinking the use of library space was the foundation of the Adams Library’s pilot project design. The library staff was able to identify the multi-purpose room as an available and underutilized space, however it could not be converted to a permanent teen space because the of the room’s multiple functions. The idea of a mobile teen space was developed to take advantage of the multi-purpose space without needing expensive or permanent changes to the room.

The team planned to load a cart with a wide variety of technology and digital creation equipment that would help improve digital literacy skills and that could store neatly away when not in use. The cart is movable anywhere in the library, with a teen space created temporarily on the spot. There were no issues with mobility and wheeling the equipment around the library proved to be a smooth and practical idea.

That said, one challenge that arose with the library space was the additional staffing required to host programs in a typically unused room. The library had to cancel a handful of programs because they simply did not have the staff available to cover the new space. Because flexibility and mobility were built into the design of this project, the space issue will be easy to reexamine as they move forward. The challenge of staffing the additional room means they may need to find space in the existing children's room or look at the main library floor, but they will continue to offer programming in one or more of these locations. The mobility of the cart means that they do not necessarily have to settle on a singular solution, and can explore using different spaces as needed.
TEENS CREATORS: TEENS TAKE THE WHEEL

Teens are frequent users of the Adams Public Library, however without a dedicated teen space and engaging programming, disruptive teen behavior is sometimes an issue in the library. Even before the technology cart was ready, the library decided to open the multi-purpose room for teen use after school with crowd favorites like board games and a Wii.

The teens loved the temporary space because it gave them a space within the library where they could be social, however when the Teen Space on Wheels cart was finally showcased, teens were not always interested in the formal programs that the library introduced along with the equipment. The librarians had to be flexible, learning that when teens were not enthusiastic about a particular project, they needed to adapt and allow the interests of the teens to guide the activity. For example, when using the 3D pens, the initial project was a flop so the teens created glasses instead, which was meant to be the second project with that tool.

When using the green screen technology, the library saw the real power of letting teens choose their own activities and take ownership of their learning. A session in taking still green screen photos evolved when the teens discovered—without librarian instruction—that the app and screen could be used for video as well. From there, the teens chose a haunted house theme together and began writing storylines to create a scary—and sometimes goofy—movie. This program was the most well received according to post-program Project Outcome surveys, indicating that allowing the freedom for self-directed learning was a successful strategy.

Along with the Project Outcome surveys, the Adams staff started a teen advisory board was created to allow teens to express their needs and interests in a welcoming and non-judgmental and environment. The library plans to have more programming using the other items they’ve bought in their cart with input from surveys and the advisory board.
IMPACTS AND SUSTAINABILITY: ROLL WITH IT
This project sought to provide a model for creatively using limited space, to build positive teen interactions through engagement, and to improve digital literacy skills in youth.

The library did successfully build their Teen Space on Wheels, outfitting their library cart with a variety of digital fabrication and technology creation equipment. It is, however, unclear if using their multi-purpose space as originally proposed is the right solution for their space given staffing constraints. Because the equipment is on wheels, of course, the library is very able and willing to try out a variety of solutions. They will also be consulting teens about where they would like to see their space, through surveying and working with their Teen Advisory Board.

Another goal of this project was to strengthen relationships with teens. The library staff worked together to evaluate their teen services using the YALSA Teen Services Competencies for Library Staff. The library focused on Competency 2: Interactions with Teens. This competency states that staff “Recognizes the importance of relationships and communication in the development and implementation of quality teen library services, and implements techniques and strategies to support teens individually and in group experiences to develop self-concept, identity, coping mechanisms, and positive interactions with peers and adults.”

Library staff worked together to self-assess their level of skill within this area, looking at the specific indicators and viewing the accompanying YALSA webinar as a team professional development activity. Project Outcome surveys of the teens attending programs showed that more teens learned about library programs from personal interactions with staff than any other marketing method. This showed the library that they were making progress at building positive interactions with teens and reinforced the importance of continued effort toward cultivating warm and respectful relationships with their teen library users.

This pilot showed that engaging teens in programs can be hit-or-miss and requires flexibility and the willingness to let go of control. During the project period of Studio Rhode, the teen time shifted from informal board and video games, toward formal programs using the new equipment. The library saw a drop in attendance along with the introduction of formal programs—from a peak of twenty-four students in casual sessions to a peak of twelve in formal programs. Despite the dip in attendance, Project Outcome surveys showed that the overwhelming majority of teens participating in formal programs felt they had learned something and increased their confidence using digital creation tools, and comments showed that they found their learning experiences meaningful and fun, while also appreciating the social aspect of the programs. Changes in attendance may also reflect changes in the seasons/school year: Formal programs were not held until summer and so that likely had an effect on attendance. Library staff also learned that children are eager for similar technology programs, as younger children in the library jealously watched the Teen Space on Wheels disappear into the multi-purpose room and asked if they could also engage. As a result, the library began offering Kids Tech Time using the Teen Space on Wheels equipment.

Moving forward, the library will remain flexible and continue the learnings that have developed throughout the project. The library appreciated how easy it was to use Project Outcome, and intends to continue using it and other data collection methods to help inform their service with teens. Empowering teens to take ownership of their learning experiences within the library and contribute to decision making will be an ongoing part of the Teen Space on Wheels. They will be looking at incorporating a mix of informal gaming and social experiences and formal technology programs as well as looking at expanding their Kids Tech Time offerings that began as a result of demand of children seeing the teen programming and wanting some for their own.
Did You Know?

Smithfield is a town with a rich agricultural history and textile manufacturing roots; these histories persist in the town’s nickname “Apple Valley” and its five villages, which grew from mill communities.

Fast Facts

- Library Budget: $1,011,072
- Population Size: 21,430
- Spending per Capita: $46.72
- Median Community Income: $76,014
- Median Community Age: 42.3

Studio Rhode Idea

To tap into the community’s agricultural roots, *Get Growing in Greenville* created an interactive learning experience through a library garden, utilizing conventional and innovative technology tools and building strong relationships with community partners. Now, the Greenville Library provides a community garden for community members to learn how to grow, cultivate, and harvest their own crops and hopes to inspire gardeners of all ages and experiences with new techniques that they can bring back to their own gardens, while continuing to think creatively about how they use their library’s outdoor space.
PROJECT DETAILS
Get Growing in Greenville was designed as an interdepartmental project involving library program staff from adult and youth services, as well as library staff from other departments with gardening experience. This project was a three-month pilot running from March through June of 2018 as part of Round II of Studio Rhode, during which the Greenville Public Library developed a community garden and related programming to help participants start their own gardens. The library built and planted raised beds to cultivate flowers and vegetables on the library grounds. In addition, the library offered programs on seed starting and garden crafts to support the creation and maintenance of the garden.

The library purchased two raised outdoor beds, an AeroGarden smart garden indoor growing system, a garden shed, soil, plants, and tools including watering cans, a wheelbarrow and hose for their own community garden. Two sets of gardening tools including a rake and hoe were purchased—one for use in the garden and one to lend to patrons. Finally, they also bought supplemental technology materials to enhance their project, including soil testers, heat mats, a Wi-Fi camera for taking time lapse photos/videos, and a digital camera and tripod for photographing plants. Three tablets were purchased to loan to patrons with pre-loaded purchased gardening apps as well as twelve Craftsy classes on a variety of garden-related topics from garden design to vegetable gardening to bonsai wiring.

The library offered a total of sixteen programs throughout the project, including six children's programs, four teen programs, and six adult programs. Children's programs included creating mosaic stepping stones, garden themed art, and floral arranging while teens 3D-printed a birdhouse. Adult programs were on gardening technology by library staff, while community partners offered expert workshops. Popular topics included Inviting Bees to your Garden with the RI Beekeepers Association and Seed Starting with the University of Rhode Island Master Gardeners. The project benefited significantly from donations and cost savings that were not anticipated—the town's Department of Public Works donated their labor to construct the raised beds, and some materials, especially soil, came in under budget.

<table>
<thead>
<tr>
<th>Grant Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>technology &amp; garden equipment $6,975</td>
</tr>
<tr>
<td>Craftsy classes $305</td>
</tr>
<tr>
<td><strong>Total project budget:</strong> <strong>$7,280</strong></td>
</tr>
<tr>
<td>(plus donated construction labor for assembly of outdoor bed.)</td>
</tr>
</tbody>
</table>

TIMELINE / 2018

**MARCH**
- Project kicked off with a partnership between the library and the University of Rhode Island Master Gardeners: getting seeds, starting with the library's indoor garden equipment, and hosting a public program about seed starting

**APRIL**
- Craft programs generated excitement with Girl Scout troops and teens
- Seeds were started inside in peat pots and in AeroGarden

**MAY**
- Programs continued with Technology tools workshop, 3D printed birdhouses, and Inviting Bees into Your Garden with the RI Beekeepers Association
- Gardening equipment and technology tools—tablets loaded with gardening apps and Craftsy classes—became available for community members to borrow
- Book lists and displays were created
- After weather delays in April, raised beds were purchased and assembled with help from the town Department of Public Works

**JUNE**
- Continued programming for all ages with community partners including Girl Scout Troop 542 and the RI Wild Plant Society
- Garden produced first harvest (zucchini, green beans, peas, and basil) and was shared with library community and Smithfield Senior Center.

SPACE: APRIL (SNOW) SHOWERS DELAY MAY FLOWERS
With the community garden, Greenville Library has extended its space beyond the walls of the building into their outdoor space, which has presented both challenges and rewards.

The ever-unpredictable New England weather saw snow into the month of April, so the delivery and construction of the garden's raised beds were quite delayed. Beds were not constructed until May, which affected the overall timeline for the project. The library had plotted a best-case scenario timeline, which was completely disrupted.

The use of outdoor space has expanded opportunities for volunteers. A whole new area of the library needed upkeep that the library could not handle alone because of physical restrictions, staffing shortages, and restrictive library hours. As a result, the library recruited two new volunteers—both experienced gardeners who had never volunteered with the library before—to water plants and help with the garden maintenance.

Craft programs with children and teens provided opportunities for young community members to personalize the garden. From 3D-printed birdhouses to mosaic tiles to hand-painted garden labels, young community members have put a personal touch on the space. The community has also gotten to personally reap the benefits of the
Plants started indoor were transplanted into raised beds.

Top: Weather delays construction of raised beds until late spring.

The thriving vegetable garden.
new project as the greater-than-expected vegetable yield was made available to library patrons at no cost.

Community-generated ideas for using the outdoor space have also flourished along with the garden. Suggestions for future projects include rainwater run-off collection, community composting, a garden picnic area, and a plant sale. Though these ideas could not be incorporated into this year’s round of programming because of the compressed schedule, the library is looking forward to exploring these projects in the coming months and years as they get more experience under their belt.

COMMUNITY PARTNERSHIPS: GENERATING BUZZ
Greenville Public Library partnered with the University of Rhode Island Master Gardeners, RI Beekeepers Association, Girl Scout Troops 548 and 323, the Smithfield Department of Public Works, and the Rhode Island Wild Plant Society. They also have plans to work with the PTO of neighboring elementary school. This project brought in new volunteer opportunities for community members and gave them an opportunity to share their harvest with a nearby senior center.

Community partnerships allowed the library to provide significantly more programs than they would have been able to provide on their own. Library staff ran some programs, but for topics requiring deeper expertise, community partnerships were invaluable. Surveys conducted at adult programs showed that the level of expertise community partners brought was appreciated, and those surveyed had a desire for more expert lectures on a variety of suggested gardening topics.

Partnerships also helped extend the reach of the project. Greenville learned through surveying program attendees in Project Outcome that cross-advertising by community partners brought new folks to the library for programs. Partners who co-advertised programs reached audiences outside of the usual library network.

At the same time, working with contractors and volunteers meant that the library had to give up some flexibility and control. Scheduling with some partners was quite difficult and prevented the library from publishing a full calendar of events spanning the project. Instead, they printed monthly bookmarks to promote events as they were scheduled.
IMPACT AND SUSTAINABILITY: BRANCHING OUT

The goal of this project was to create an interactive learning experience for the community that incorporated traditional and innovative tools, rethought library space, and strengthened and expanded community partnerships.

From late March to June, over 160 community members of all ages came to a total of sixteen programs planned around the community garden. Tablets and gardening tools for loan have been constantly checked out with enthusiasm since they were made available; other tools, such as the camera made available for garden photography, have not been as popular. Surveys of program attendees showed that a majority of those surveyed strongly agreed that programs had increased their knowledge of the topic, confidence using the tools and techniques, gardening skills, and awareness of library resources. Library patrons also took a keen interest in the garden, stopping library staff out in the community to ask about the progress from the garden, offering ideas for future projects, and expressing interest in seeing the garden programming continue.

Greenville Library staff working on the project also reflected about the project and its behind-the-scenes impact. Certainly, they learned some lessons: giving themselves a more relaxed timeline that accounts for potential disruptions like weather, building in milestone dates to help hasten the process of cataloging items for circulation, and not planting too many zucchini plants in close quarters. Most importantly, they also learned that they enjoyed working on an interdepartmental project with a common goal; their unified approach generated programs for all ages and made a positive change in the library.

Greenville achieved their projected activities by hosting a wide variety of programs, building community connections and maintaining a thriving garden. They regret that they could not incorporate all the new ideas that were generated during the pilot period, and so look forward to having the experience and flexible plan to better incorporate technology tools, provide even more hands-on experiences, recruit still more new volunteers and meet the frequent patron request for this to become an “every year thing.”

A local girl scout troop learns about the garden

The harvest from the herb garden

Planting the first seeds for the garden, donated by URI Master Gardeners
**Virtual Providence**

Studio Rhode Project Team  
David Sok, Allison Riendeau, Kelly Parlin  
http://provcomlib.org

**STUDIO RHODE IDEA**

*Virtual Providence* is a series of 360-degree video tours of cultural institutions in Providence created by local teens in the library. These video tours will be available to be experienced in all Providence Community Library branch libraries and through the system’s bookmobile as a supplement to the summer reading program. Library staff had noted that many of the children who participated in summer reading did not complete any experiential learning options—like visiting the RI State House or Zoo—which they can do as part of the “summer learning passport” program. *Virtual Providence* is meant to offer children who cannot visit such places in person the opportunity to visit virtually.

**Fast Facts**

- Library Budget: $5,673,115  
- Population Size: 178,042  
- Library Spending per Capita: $28.10  
- Median Community Income: $37,366  
- Median Community Age: 29

**Did You Know?**

- Providence is one of the oldest cities in the United States and the one the first cities to embrace the Industrial Revolution. Providence Community Library has nine branch libraries throughout the various neighborhoods in Providence.
PROJECT DETAILS
Spearheaded by the library’s IT manager, Virtual Providence created opportunities for teens to learn a new digital skill while simultaneously allowing children across the city to experience cultural institutions through virtual tours.

Providence Community Library has teen summer interns who, as part of their work for the library, are creating 360-degree video tours of locations, including planning the videos and shooting and editing footage. Once the videos are created, they are uploaded to YouTube’s 360-degree platform and shared with children and families across the library’s nine branches and bookmobile via virtual reality (VR) headsets.

To execute the project, the library purchased an Insta360 Pro camera, opting for 8K definition to capture higher quality footage. To accompany the camera, they purchased additional equipment such as extra battery, charging port, and external storage. The library settled on Adobe Premiere Pro as the software capable of editing the videos to their highest quality. They purchased a tripod, which they attached to children’s wagon for increased stability. Finally, after initially proposing a VR headset/phone combo, the library purchased Oculus Go headsets, which require neither phone nor sensor for setup.

To allow library staff to fine-tune the filming and editing process, test videos were created at a story time to allow and on-site at the Soaring Eagle Zipline Ride at the Roger Williams Zoo. During this time, the library attended both community events and RI library events to promote the project, giving community members and librarians the chance to view the test videos on the Oculus Go system.

Finally, the library recruited teen interns and filmed tours at two cultural institutions: The Roger Williams Zoo and the Rhode Island State House. Following filming, these videos were stitched by library staff using Adobe Premiere Pro and loaded into the Oculus Go headsets. The headsets were loaded into the city’s bookmobile so summer learners across the city can experience the videos.

TIMELINE / 2018

<table>
<thead>
<tr>
<th>MONTH</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARCH &amp; APRIL</td>
<td>Library ordered and received 360-degree camera and began testing, with demo video of Story Hour at Washington Park Library and at Brown University’s Robot Block Party</td>
</tr>
<tr>
<td>MAY</td>
<td>Zennovation Fund at United Way of Rhode Island provided $5,000 for additional VR equipment</td>
</tr>
<tr>
<td></td>
<td>Library purchased Oculus Go headsets the first week they are released</td>
</tr>
<tr>
<td></td>
<td>Youth Librarian helped film “Soaring Eagle Zip Ride” test video, which was uploaded to Providence Community Library’s YouTube channel</td>
</tr>
<tr>
<td>JUNE</td>
<td>Outreach continued as the library shared about VR uses and experiences with librarians at the RI Library Futures Conference and with community members at PVDFest, a citywide arts festival</td>
</tr>
<tr>
<td>JULY</td>
<td>Student interns filmed during a five-hour trip to Roger Williams Park Zoo in exhibits including the Alex and Ani Farmyard, Soaring Eagle Zip Ride, Camel Ride, Train Ride, African Elephants, Armadillos Encounters, and River Otters</td>
</tr>
<tr>
<td></td>
<td>Bookmobile took OculusGo headsets on the road for community members to try out tours from Roger Williams Park Zoo</td>
</tr>
<tr>
<td>AUGUST</td>
<td>Student interns spent three hours touring and filming at the RI State House</td>
</tr>
</tbody>
</table>

PARTNERSHIPS: GETTING THE SHOW ON THE ROAD
Virtual Providence would not have been possible without strong community partnerships. Leading up to this project, Providence Community Library was introduced to Rhode Island Virtual Reality (RIVR), a group of professionals and volunteers whose mission is to spread virtual reality throughout Rhode Island. RIVR was an asset in collaboration, information sharing, and the planning of project activities.

This project also hinged on the partnerships of the cultural institutions that served as tour sites. Providence Community Library developed an easy working relationship with the Roger Williams Park Zoo, which offered the teens and their instructor free admission for the day and provided early entry so that they could conduct the first recording session without waiting in lines. The Rhode Island State House, similarly, provided a dedicated tour of the State House exclusively for student interns.

Partnerships were not without their challenges, particularly regarding scheduling. Though the zoo was happy to accommodate the library, the animals’ feeding schedules overlapped with school hours and filming was delayed until summer break. The tour of the State House took time to receive the go-ahead, as approval for the teens to complete the tour needed to come from higher up in the State House management. This tour was not completed until August, beyond the close of the project window.

Grant Expenditures

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Technology equipment</td>
<td>$9,700</td>
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Total project budget: $9,700

(plus additional funds from United Way of Rhode Island for the purchase of additional Oculus Go headsets.)
Despite the challenges, both the zoo and the State House were enthusiastic and accommodating partners. Each institution appreciated the potential value of these 360-degree videos which will ultimately be made available not only to the Providence library community, but to the rest of Rhode Island and, through YouTube, the entire world.

Providence Community Library plans for future partnerships and collaborations with other organizations, with the goal of expanding their 360-degree archive to institutions across the state of Rhode Island.

VIRTUAL REALITY: A STEEP LEARNING CURVE

This project focused on both the experience of using virtual reality as well as the creation of it, as the library was eager to use virtual reality tools for a meaningful purpose. The Providence Community Library is passionate about 360-degree video as a new archiving format. They are excited both to capture the experience of living in Providence in this immersive format and to share that experience with community members, the organizations they film, the world, and future generations.

If a library wanted to replicate this project, there are several lessons learned to consider. The technical knowledge required to stitch the videos was a bigger challenge than anticipated. Adobe Premiere Pro has a steep learning curve, and the process took a full night to render, so it was impractical for teens to learn this component of the process. The project team recommends hiring an expert to teach these skills. Even with this challenge, participating teens were able to learn a variety of skills: setting up and using VR headsets, filming with a 360 degree camera, storyboarding a tour, editing footage, and writing and recording voiceovers.

The library quickly discovered that extra batteries and a portable charger were necessary for filming longer stretches of time. They also needed to acquire external storage for the very large files—and had to shop around to find the right fit, as many hard drives were not compatible with the 360 video files.

As test filming commenced, the library also found that despite their higher-quality camera, the footage was a bit too shaky, which would be more likely to trigger motion sickness in viewers. To combat the shake, the library mounted the tripod on a children’s red wagon. This stabilized the camera with the added bonus of creating an eye-catching display that draws curious community members to the camera.

Once the teens’ Roger Williams Park Zoo videos were stitched and uploaded the Oculus Go headsets, they were sent out with the library’s bookmobile for use by children and families across the city. Lines formed as children marveled at how large and close the animals felt.
Sanitation was a simple but unexpected challenge when using the headsets. As multiple people used the headsets, the cloth that touches people’s faces became dirty and the material was not easy to clean. Currently, the library wipes each Oculus Go with disinfecting wipes between uses and is looking into leather covers that will make cleaning easier.

**IMPACTS & SUSTAINABILITY: THE ZOO, STATE HOUSE, & BEYOND**

*Virtual Providence* sought to use virtual reality headsets and a 360-degree camera to create experiences of local cultural institutions so that they might empower young people to become digital creators, provide increased access to learning experiences for city children participating in the Passport to Summer Learning program, and strengthen the connection between the library and surrounding cultural institutions.

The Providence Community Library was successful in creating 360 degree video experiences of two RI institutions—the Roger Williams Park and Zoo and the RI State House—despite several disruptions in the timeline. The larger-than-expected learning curve on the equipment, the difficulty building a schedule around both school-aged teens and hungry zoo animals, and significant changes in library staffing meant that video production did not begin until July, fourth months after it was planned to launch.

Four teen interns participated in the full-day filming experiences, learning to operate the camera and storyboard a video. Scaling the project to include more teens may be difficult for additional tours of cultural institutions, which require coordinated travel. However, the library has plans to try. In addition to seeking more cultural institutions to tour, the library is also interested in creating more in-house videos to promote library services, and may be able to work with more teens in that capacity.

As the library tested the equipment at community events like Brown University’s Robot Block Party and PVDfest art festival, many community members were able to try the equipment out before the bulk of videos were made. *The Soaring Eagle Zipline* 360-degree experience test video has been viewed on Oculus Go sets by over 100 community members. Many more were able to try out other experiences on the headsets as well.

This project has already had a significant impact on the RI and southeastern New England library community. The thoughtful and purposeful approach to using virtual reality coupled with the digital creation element make a potentially exciting model for libraries that are considering incorporating virtual reality into their library. Providence Community Library has presented at several workshops with the RI Office of Library and Information Services, as well as at the Ocean State Library Consortium and the Connecticut State Library.
Virtual Worlds at Warwick

Studio Rhode Project Team
Jana Stevenson, Wil Gregersen, Mary Anne Quinn, Chris LaRoux

http://warwicklibrary.org

STUDIO RHODE IDEA

The Virtual Worlds at Warwick pilot used virtual reality (VR) to support the library’s mission to be its community’s “open door to learning” and to build empathy and to democratize this new technology. They planned to use VR to take patrons through empathy-building experiences while also providing opportunities for their patrons of all ages to simply try out the VR experience, many of them for the first time.

Did You Know?
Warwick Public Library is one of the largest libraries in the state with a collection consisting of 238,746 items.

Fast Facts
- Library Budget: $3,983,658
- Population Size: 82,672
- Library Spending per Capita: $49.41
- Median Community Income: $66,602
- Median Community Age: 45
The Warwick Public Library first decided they wanted to do a project with virtual reality after reading several scientific experiments showing that being fully immersed in another culture or lifestyle can increase the amount of empathy a user had for someone in different circumstances. The team behind Virtual Worlds at Warwick project wanted to ensure that VR would be used in a purposeful way, and decided to embed the technology into existing programs, including their board game club, teen volunteer opportunities, and book clubs. Different library departments—teen services, reference, adult services—were consulted and several library staff were trained to ensure this technology was embedded throughout library programming to expose all populations to the technology during the pilot, which ran from March to June 2018.

To provide an immersive VR experience, the Warwick Public Library purchased 2 HTC Vive Virtual Reality Systems. To support the systems, they purchased one Alienware Aurora R7 Desktop with 16GB RAM, NVIDIA GeForce GTX 1080, and 2TB Hard drive for in-house set-up and an ASUS Gaming Laptop to provide the option of a portable experience to be used for outreach and eventually, for lending to other libraries. They also purchased all of the bits and pieces needed for the VR room scale setup and a variety of games and experiences to load onto the systems from Viveport and STEAM. They reserved the remainder of their grant funding to pay consultants for help with everything from choosing equipment to providing public programs.

The VR experiences were primarily offered to the community through open virtual reality windows and by appointment. The library’s book clubs were reading the book *The Refugees* by Viet Thanh Nguyen, and were encouraged to try an immersive refugee experience called *Forced to Flee* as a supplement to their reading. During these open times and appointments, users had the opportunity to explore the full catalog of experiences, including games, empathy-building, and exploratory experiences. The library also sought to involve teens as digital creators, hosting a Spring Break Creation Camp. Teens worked together to measure the library, convert feet to Minecraft blocks and create a to-scale 3D version of the library.

**COMMUNITY PARTNERSHIPS: DOWN BY THE RIVR**

Warwick Public Library partnered with Rhode Island Virtual Reality (RIVR) to provide VR to its community and the expertise and enthusiasm RIVR provided proved integral to the successful completion of the project. The library used grants funds for consultation with RIVR to help them decide what equipment they wanted to purchase. Though initially planning to purchase an Oculus system, RIVR helped them decide upon a VIVE HTC system instead because they felt the system was more robust.

RIVR connected the library with a student from New England Institute of Technology (NEIT). This paid student consultant was in the first graduating class at NEIT that studied content development specifically for virtual reality hardware and helped to set up and run the first NEIT VR Lab. The student consultant attended various VR outreach events on behalf of the library and trained the library staff on how to use the system. He was very helpful in setting up the system, training library staff, increasing interest with users and helping to run the spring break camp for teens.

Finding partners who bring expertise made this project run considerably more smoothly than if the library had sought to complete this project on their own. This also presents a positive example of how communities can work together to provide enriching experiences to their populations.

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**Grant Expenditures**

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<tr>
<th>Description</th>
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<tr>
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<td><strong>Total project budget</strong></td>
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</table>
a challenge moving forward; because they relied so heavily on experts to provide programming, finding in-house staff willing to tackle VR on their own may be a bit tricky in the future.

VIRTUAL REALITY: WALK A DAY IN ANOTHER’S VIRTUAL SHOES

Warwick Public Library offered roughly sixty experiences and games in fully immersive VR. Categories for experiences included storytelling, education, and games. Consideration of these different categories of experiences went into the selection of experiences, as they library wanted to offer a wide breadth of experiences from which anyone could find something that excited them. Depending on a person's comfort level and interests, they could chose from among those experiences, which included: Forced to Flee (a live-action fully immersive video recorded at a Rohingya refugee camps in Bangladesh), International Space Station Tour VR, Fruit Ninja VR. For a full list of the VR experiences provided by Warwick, visit the virtual Studio Rhode Toolkit online at http://studiorhode.ri.gov.

The logistics of using the Virtual Reality went relatively smoothly. Patrons could reserve the VR headset for thirty-minute sessions using Setmore, which the library already uses to book tech help sessions. Their NEIT student helped patrons learn to the use the system during these times, but also spent considerable time at the outset of the project training the staff on setting up the equipment, ordering and downloading experiences and using the equipment, so that the library could continue offering experiences when he was no longer involved.

There were a few practical lessons learned about using virtual reality equipment. The library learned quickly that sanitation would be a concern and opted to purchase disposable adhesive masks that could be applied for each new person using the headsets. The library also developed a waiver with the town of Warwick legal department, especially as concerns arose over the appropriate age for use of this technology and the potential side effects. Though the VIVE HTC has no specific age limit—it merely suggests adult supervision—the library opted to set a minimum age limit of twelve, requiring a waiver signed by a parent or guardian for those under eighteen. Adults were also asked to sign the waiver making them aware of the potential side effects of using the VR.

There has been an overwhelmingly positive response from adults to having VR at the library. Many patrons truly felt immersed in the experiences, whether that was experiencing being at a Rohingya refugee camp in Bangladesh or experiencing homelessness. Many patrons were speechless, extremely moved, or had a feeling of helplessness, similar to the characters and people in the experiences mentioned. Other experiences allowed a patron to travel back to the city where they grew up and another gave an older patron the feeling to being able to dive again.

The library sought to provide VR experiences relevant to all ages, and so used VR with older kids and teens as well. The flagship effort with teens was the Spring Break Creation Camp, led by the project’s NEIT student staffer, which turned teens into digital creators in addition to consumers. This program quickly reached its fifteen-person registration limit, with a three-person waitlist, and culminated in a virtual tour of the library for the parents of the students, created by the teens.

Efforts to embed virtual reality into existing programs were hit-or-miss. Tying in the book club selection to the VR refugee experience worked well and the teen creation camp was a hit. But the library also tried incorporating VR into their popular weekly board game club. Though interested in trying out the games offered through the headsets, the club quickly returned to their main interest—board games—and ultimately the library stopped setting up the VR for this program.

IMPACTS AND SUSTAINABILITY: FULL STEAM AHEAD

When Warwick Public Library started their project, the team had two goals in mind: provide a service that would build empathy and provide access to new technology, democratizing it for their community.

This project generally ran smoothly. After a snow storm delayed the arrival of the equipment, the library had to alter its plan for teen tech week to the April vacation creation camp, but otherwise their programming ran as scheduled. Partnering with RIVR and having their NEIT student intern on hand throughout the project helped provide them with the expertise they needed to avoid serious struggle.
Outside of outreach events and the teen creation camp, the library estimates that about seventy-five people used the VR equipment during open VR windows and through appointments. When given the opportunity to explore freely, many users chose deeply personal experiences. From the elderly woman who went diving for the first time in many years to the immigrant who visited the streets of her hometown, users reported having meaningful experiences when they tried this equipment.

Virtual Worlds at Warwick brought people to the library to try VR experiences and games, and some users in turn brought more people to the library. For example, one patron booked a VR session to view the refugee experience to go along with the book club selection, and stayed to try out Becoming Homeless: a Human Experience. As a volunteer who works with the homeless, she was so moved by the experience that she went back to her community group and convinced at least five additional volunteers to book VR appointments at the library to try the experience.

The library is confident that ongoing VR appointments and tie-ins to the book club will continue—there are already plans to use VR to take a bus tour of Paris virtually after reading a book set in France—and that two or three programs focused on content development will be held. The biggest concern for continuing the project is to find someone on staff who is interested in and able to conduct VR programs. During the project window, because a paid intern provided most of the instruction to the public, so they will have to find the staff time to devote to this project.

Warwick Public Library has also made a number of connections throughout the RI library community through their outreach efforts to librarians. They intend to start a VR lending program through which other libraries in the state can borrow their portable set up.
For additional resources, including project planning and measuring, professional development, and case-study resources, please visit [http://studiorhode.ri.gov](http://studiorhode.ri.gov).