DIGITAL INCLUSION
START-UP MANUAL

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INTRODUCTION
Successful digital inclusion efforts are rooted in trust. Technology is frustrating. It is constantly changing. It has a history of being used to steal and harm. Getting community members to feel confident when working with technology is a matter of trust. In most cases, this trust happens because the organization providing digital inclusion programming is also providing other services of value to community members (books, housing, social service support) and is staffed by individuals from the community.

The title of this guidebook is recognition of grassroots efforts in the past 25 or so years to address equitable access to and use of information communication technologies. In the early- to mid-1990s, the focus was on improving digital skills through class training and public computer labs.

During those days, equitable access to and use of technology occurred through the creation of community technology centers. In the 2000s, community-based organizations and anchor institutions with broader missions were creating digital inclusion programs with in-house community technology centers/labs. The resource everyone turned to at the time was the CTCNet Start-Up Manual.\(^1\) CTCNet was the Community Technology Centers’ Network, a national organization that “envisioned a society in which all people are equitably empowered by technology skills and usage.”\(^2\) The manual provided guidance on finding free/low-cost software, securing the computers, setting up the space, determining program focus, easily rebooting the computers to the original settings and much more.

As the Coordinator of the Coalition to Access Technology and Networking in Toledo, I helped set up public access computer labs in the mid-1990s. We were excited if we could manage to get one computer access to the internet (dial-up) and jumping for joy if we had more than one.  

- Angela Siefer, NDIA

Today, knowing how to use word processors and spreadsheets is still important, but the list of necessary digital skills has expanded. Now, we also have a growing recognition that everyone must have internet service at home with the devices necessary for the tasks at hand.

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CHAPTER 1:
WHAT IS A “COMMUNITY DIGITAL INCLUSION PROGRAM”? 
Digital inclusion refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of information and communication technologies (ICTs).

This includes the following five elements:

1. Affordable, robust broadband internet service;
2. Internet-enabled devices that meet the needs of the user;
3. Access to digital literacy training;
4. Quality technical support and
5. Applications and online content designed to enable and encourage self-sufficiency, participation and collaboration.

Digital inclusion must evolve as technology advances.

Digital inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional and structural barriers to access and use technology.

A community digital inclusion program is a local nonprofit, public or private initiative aimed at making at least one of the “five elements”—digital literacy training, technical support or empowering applications or content—more accessible to community members, especially the “most disadvantaged.”

Public and nonprofit leaders have created practical, hands-on digital inclusion programs in communities throughout the U.S., such as digital skills training centers, public computer labs, nonprofit computer refurbishing, community wireless broadband and others.

Some of these programs have served their neighbors since the 1990s. Others have just started up recently. Their sponsors and leaders include library systems, local governments, public-housing authorities, schools, colleges and a wide variety of nonprofit groups: social service agencies, faith organizations, civil rights and neighborhood organizations and a handful of “community technology” groups created to pursue digital inclusion as their primary mission.
CHAPTER 2:
CHOOSING YOUR FOCUS—HOW COMMUNITY DIGITAL INCLUSION PROGRAMS APPROACH THE FIVE ELEMENTS
As a practical matter, most community digital inclusion programs serving disadvantaged, unconnected community members concentrate on some combination of the first four elements: affordable internet access, affordable devices, digital literacy training and/or tech support.

Most digital beginners need help with all four—and if they are low-income, they need them all to be free or very affordable, so this manual focuses on starting up community-based training, device and network-access programs.

The fifth element, applications and content development, is being addressed by civic-technology organizations such as Code for America. It is a known problem that applications and content development are often developed for not with the populations that they are intended to serve.

Your program might address only one or two of these elements. It’s very common for digital inclusion programs to focus exclusively on basic computer and internet skills training...or on providing low-income families with cheap, refurbished computer systems...or on a low-cost access resource such as a public computer lab, a free Wi-Fi network or very cheap “fixed 4G” subscriptions.

What’s also common, fortunately, is collaboration within the same community to help community members be fully connected. Some communities have strong and diverse digital inclusion ecosystems. Others are lacking one or more of the digital inclusion elements. Additionally, because digital inclusion work is so rooted in trusted relationships, multiple organizations may and should be providing similar services if those services serve a different geography or population.

A common scenario of a functional digital inclusion ecosystem: Community training centers provide free basic digital literacy classes and discount internet options, then refer their graduates to local refurbishers for cheap computers. Refurbishers and community internet service providers help their customers find training opportunities. Local libraries offer digital literacy classes along with public access, Wi-Fi and even 4G-device lending and refer their patrons to nonprofit partners for additional classes, refurbished computers and home access.

Your program’s focus will depend on your goals, your capabilities and resources, your analysis of community need, the priorities and limitations of your sponsoring organization, etc. As you identify that focus, be sure to consider how the people you serve will get access to all of the elements of digital inclusion. If your planned focus is limited, do potential partners providing the other elements exist in your community? Are you talking with them? Do you have some understanding of how they operate, what opportunities or problems you might create for them and what they offer for people you might refer to them?

Also consider whether your program might duplicate or even compete with existing community efforts. If so, are you adding capacity for a community that truly needs it?

CHAPTER 3:
GETTING STARTED: THREE IMPORTANT QUESTIONS

Answering these questions for yourself and talking them through with others—possible partners or supporters but other knowledgeable people as well—is always useful. The least you’ll gain from the process is a better sense of how to describe what you want to do.

QUESTION 1. WHY DO YOU WANT TO START A DIGITAL INCLUSION PROGRAM?

A. Who are you? What’s your role in your community, and why is digital inclusion important to you? You might be:

- A librarian who sees crowds of people who need to use public computers.
- A teacher whose students can’t get online assignments done.
- A nonprofit housing manager whose tenants need help to get online.
- A workforce program manager whose clients need digital skills for job placement.
- A family services, senior services or healthcare provider whose clients need computer literacy and access to learn about and access services for which they are eligible.
- A business manager who sees a need for more digitally literate employees or job applicants.
- A local technology advocate looking to enable more citizens to engage with a “smart community” vision.
- A public official or civic policy leader concerned that community members are being digitally left out.
- A neighborhood activist or planner in a neighborhood where many residents are unconnected.
- Or just an independent, concerned individual who wants to help neighbors become more digitally connected.
Whoever you are, it’s important to be aware of the legitimacy and perspective you get from that role, of others in the community who could add their own legitimacy and perspectives as partners and of how your interest and program idea will be received by others based on who “owns” it.

B. What’s the digital exclusion issue you want to address in your community? Do you want to focus on a particular population (such as seniors or community members with disabilities) or a particular outcome (such as improving job prospects or accessing health care resources)?

Can you describe the impact you would like your program to have? Can you be specific?

The National Digital Equity Center’s Maine Digital Inclusion Initiative aims “to provide digital literacy instruction to over 10,000 adult learners each year for the next three years throughout Maine… Digital Literacy assessment and skills training… will increase employability of program participants, improve their job-seeking skills and create a more highly skilled, job-ready workforce across Maine. The program will also help seniors “age in place” by offering classes and workshops on how to use technology tools that will help them remain in their homes, as they grow older.”

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Tech Goes Home Chattanooga* will continue offering its core programs—focused on early childhood education and the families of young children; on school-age children (K-12) and their families; and on adult residents and workforce needs—providing an estimated 1,030 individuals with 15 hours of age-appropriate digital literacy training, the opportunity to purchase a new device for only $50 and access to low-cost home internet. Tech Goes Home will also scale programmatic offerings developed in FY2019, to including an expanded Early Childhood program, re-focused on supporting families as well as providing professional support for early childhood providers; programming specifically focused on accessibility, creating digital scaffolding alongside the work of disability service organizations; additional Small Business programs serving a diverse community of entrepreneurs; and an expanded Office Ready program, designed to help under- and unemployed residents develop the necessary skills for success in the 21st-century office.”

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QUESTION 2. CAN YOU DOCUMENT YOUR COMMUNITY’S NEED FOR A DIGITAL INCLUSION PROGRAM?

Personal experiences and digital exclusion stories are often enough to get an initiative moving. But to target your efforts, clarify goals, build support and develop a strategy, you’ll want to have solid supporting data. Luckily, good local data about household technology access and needs is getting easier to find. Here are some places to start:

- FCC Form 477 Census tract and block data
  (See Appendix 1.)
- U.S. Census American Community Survey (ACS) Data
  (See Appendix 2.)
- Any local survey data you can find
- Library computer-use statistics
- And talk to:
  - Workforce program staff
  - Housing providers
  - County social service staff

Digital inclusion program planners in some communities have carried out their own survey research with local residents, three of which are the City of Austin, City of Seattle and the City of Fayetteville.

Austin Digital Assessment Project

In the heart of Texas, the City of Austin partnered with the University of Texas’ to administer a citywide assessment of local households’ access and use of information and communication technologies in 2014. The self-administered mail and online survey was delivered in English and Spanish to 15,000 randomly selected households, including a 20 percent oversampling of low-income households to ensure adequate representation from economically disadvantaged groups. Survey results were statistically adjusted to be generalizable to the Austin population. Findings affirmed residents possessed higher-than-national-average technology adoption. Despite these findings, significant gaps in use and access were reported for the estimated 50,000 digitally divided households. The results were reported by geographic area, race and ethnicity, among a number of metrics. The assessment report was released concurrently with the city’s Digital Inclusion Strategic Plan, providing data and strategy guidance for community stakeholders engaged in digital inclusion programming. Sample topical areas include places of access, reasons for non-adoption, online activities and information sources.

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8. Note: ACS Table B28002 provides data on households with cable, DSL or fiber broadband accounts—i.e., conventional “wireline” connections—vs. households for whom mobile devices are the sole home internet service. This distinction is important because mobile subscriptions are far more likely to have strict data usage limits and the devices they connect, especially smartphones, also have serious limitations in important use categories like education.
Technology Access and Adoption Study

The City of Seattle announced results from its fifth citywide digital inclusion survey in early 2019. The survey design was co-created through a series of discussions with community leaders and representatives of the city’s technology advisory board. Using a combination of random and non-random sampling techniques (Fig. 1), nearly 20,000 residents were solicited to complete the bilingual Spanish and English survey either on paper or online, with the option to contact support services by phone for assistance in completing the survey. Results from the study showed a significant five-year increase in internet access among residents from 85 to 95 percent and an average monthly household internet cost of $150. Emphasized in the 20-page survey report were key barriers to access and adoption, such as unaffordability and frustration with the quality of internet access. The city’s council president noted that “it is vital for us to conduct a digital equity study every few years to truly understand the pulse of the city’s digital access.” Sample topical areas include online use and skills, tech support, privacy and security concerns, civic engagement, training needs and barriers to adoption.

<table>
<thead>
<tr>
<th>Invitations (n)</th>
<th>Responses (n)</th>
<th>% Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Population</td>
<td>15,000</td>
<td>2,937</td>
</tr>
<tr>
<td>Targeted Low-Income Household (60% low-income in census tract)</td>
<td>3,000</td>
<td>385</td>
</tr>
<tr>
<td>Seattle Housing Authority Household</td>
<td>1,500</td>
<td>274</td>
</tr>
<tr>
<td>Seattle Public Schools Parent or Guardian (email only)</td>
<td>29,865</td>
<td>669</td>
</tr>
<tr>
<td>Tiny House Village Resident</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>49,365</strong></td>
<td><strong>4,315</strong></td>
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*Fig. 1. Methodology and sampling graphic from: 2018 Technology Access and Adoption Study.*
The City of Fayetteville partnered with a group of engaged citizens and local leaders representing education and the private sector to distribute its inaugural 2019 survey of citywide digital equity. The survey, which is currently being deployed at the time of this guide’s printing, will be delivered in English and Spanish to a random sample of households for completion online or via paper formatting. Any interested resident can participate in the study by visiting the Speak Up Fayetteville website. City leaders note additional plans to promote survey completion through a combined effort of media engagement, public events and distribution via the public library system. The concise 23-question survey assesses home internet access, digital-device ownership, digital skills and technology interests. Results from the study will reportedly be used to inform the city’s development of a digital-equity strategy to drive the development of digital inclusion programming to address documented needs.

The basics of digital inclusion are similar in all settings. Important aspects of your digital inclusion initiative—including decision-making, resources, program objectives, training priorities, desired outcomes, metrics and constituent relationships—will vary depending on your sponsoring organization, operating style and goals.

So...which of these settings are you planning for?

A. Digital inclusion programming inside a community institution or established organization
   - Library
   - Housing authority
   - Social service agency
   - Community organization
   - School
   - Some other institution or organization

B. Digital inclusion programming in support of another program agenda
   - Workforce training
   - Adult literacy
   - Health services
   - Financial literacy
   - Public childhood education
   - Some other kind of existing program

C. A stand-alone community digital inclusion program

If the answer is “standalone community digital inclusion program,” then who’s the “owner”? Is there a sponsoring organization in place, or do you plan to create one?

This is vitally important if you plan to raise and spend money to support the program. It’s less vital but still important if you’re thinking about an all-volunteer, no-major-expenses operation.

Even if you don’t need significant funding, you probably still need an organizational structure to:

   - Get and keep your partners and volunteers engaged;
   - Protect yourself and others from personal liability;
   - Attract in-kind donations of equipment and supplies;
   - Attract monetary donations and
   - Create the kind of community presence and support you want.

If you want your donors to be able to deduct their donations, then you require a nonprofit corporation with a functioning board of directors and an IRS-confirmed charitable tax status such as 501(c)(3), with the ability to comply with government reporting requirements, accounting standards, employment laws, etc.
You can learn more about setting up a nonprofit organization at:

National Council of Nonprofits\(^\text{12}\) and Nolo’s guides to starting a nonprofit,\(^\text{13}\) including a state-by-state guide.

For a new digital inclusion program, the process of designing, organizing, incorporating and (if necessary) raising money for a standalone sponsoring organization will take a lot of effort and time before you’re in a position to start your work.

It’s often simpler to begin as a project of an existing institution or program with the possibility of spinning off an independent program if that makes sense at a later time.

The right path for your initiative will depend not just on its goals but on the particular opportunities and obstacles you find in your community—especially the people you may want or need to work with and the resources you find available. Make the effort to meet those people and explore those resources.

Taking the time to answer these basic questions—to your own satisfaction and the satisfaction of prospective allies and partners—will put you in a much stronger position to plan an appropriate, effective digital inclusion strategy for your community.


CHAPTER 4:
DIGITAL LITERACY TRAINING

For most of us, computer and internet user skills—the skills that constitute basic digital literacy—have been “learned by doing,” literally through years of practice. Adults who’ve fallen behind the general population’s digital-learning curve and now want to catch up often need some help to get started.
Overcoming the discomfort barrier through some form of introductory learning assistance—whether through group classes or one-on-one help—is one of the most common forms of digital inclusion work.

“Digital literacy” and “digital literacy training” mean many things to many people, from smartphone apps and Facebook for beginners to advanced coding and network management for career seekers. Local digital inclusion programs operate training programs that run the gamut of these topics.

On one level, this is a pretty simple process. Students come to a place where computing devices are sitting on desks or tables, usually with internet access; an instructor conducts a series of “how-to” lessons through presentations and demonstrations; the students learn and practice what the instructor shows them. Often the classes conclude with some kind of assessment or test of each student’s new skills.

As simple as this process seems, there are many variations in the real world. Depending on the curriculum and other factors, a “basic computer training” course may be as short as four or five hours or as long as 30 or 40. The instructor might be a credentialed professional, an enthusiastic community volunteer or something in between; she might be working with a full classroom of students or one-on-one. The student assessment could be a simple review and a handshake or a formal examination leading to an introductory skills certification, such as Northstar or IC3.
PLANNING YOUR DIGITAL LITERACY TRAINING PROGRAM: A CHECKLIST

Want to set up a community training program to help individuals (usually but not always adults) learn the basic skills of computer and internet use?

You’ll have to come up with appropriate answers for a few simple but important planning questions. Here’s a checklist:

1) **Where will your training happen?**
   - Can you use an existing computer lab or classroom with devices and internet already in place?
     - How many seats does it have, and how many hours can you monopolize it?
     - Can the owners of the space guarantee your use of the space indefinitely, or do they expect to need the space for another purpose at a point in the future?
   - Have you identified the space you will need for the computer lab? Will the space meet your needs?
     - Is the space the right size for your needs?
     - How good is the wiring, and are there sufficient outlets for the equipment you intend to bring in?
     - Does it have existing internet service, or if not, is there internet access that could handle a full lab of computers at a cost you can afford?
     - Can your prospective students get to it? Is it handicapped-accessible? What’s the bus and parking situation?
     - Is it a place your prospective students will feel welcome?
   - What equipment will you need, and how can you acquire it most economically?
     - Do you need workstations, or will laptops and folding tables work?
     - Is there a local refurbisher or a supportive business that will provide the computers and peripherals you need at little or no cost? (Note: For training purposes, there’s not much difference between a new laptop and a good refurbished business-class laptop from four or five years ago.)
   - If you need to find training space, ask yourself all the same questions in addition to the big one: What will this space cost, and how will the program cover that cost?

2) **Who are you hoping to train?**
   - Seniors? Young mothers? Jobseekers from the local workforce office? Public housing tenants? Adult Education students working on their GED or ESL credentials or job skill certifications? Just any neighbors who walk in?
   - What’s your plan for getting them into your classes? It’s important to be really specific and thoughtful about this at the beginning, especially if you’re going to have fixed costs like rent, utilities and internet—not to mention staff. Empty classes aren’t a good use of your limited resources nor are they good for fundraising. Do you have a waiting list already? Partner organizations committed to recruit? An incentive like free computers to help bring people in?
3) **Who will do the training?**

- Do you have existing staff or volunteers who are willing and able? Are they qualified to teach the material you plan to cover and the people you want to serve? Do you expect to have special language needs, and are they covered? If there’s a certification you want to prepare your students for, have your prospective instructors passed the test?
- If you need to hire one or more instructors to meet these needs, do you have any good prospects? Do you expect to hire them as employees or contractors? How does this fit with your organization’s employment policies and management capability?

4) **What are you planning to teach**

Basic digital literacy training generally includes at least the following elements:

- Components of a computer
- Mouse and keyboard use as well as usually some keyboarding
- Using an internet browser
- Creating and using an email account
- Basics of word processing
- Privacy, security and data protection
- Finding trusted sources for additional learning

Additional digital literacy education can center on specific applications (e.g., word processing, spreadsheets, graphics), specific domains of interest (e.g., health care or financial management) or development of job skills (e.g., warehouse management, spreadsheets) and certifications (e.g., hardware or software). Note that these may impose software and/or hardware requirements on your training lab.

Often, people seeking digital literacy are interested in solving a particular problem. Others may approach it from a more general desire to learn what computers and the internet are all about. In the first case, this motivation may be used to provide the student with general skills to address their immediate need as well as further explorations of areas of interest. In the second, it can be useful to identify specific applications that capture their interest to provide a sense of accomplishment as they acquire these skills.

If your program has a specific focus based on the community needs, you might want to align your curriculum with an appropriate partner or even arrange a training partnership. If your goal is promoting skills for employment, for example, it can be a good idea to reach out to local workforce agencies to help align your training with the needs of area employers.
5) **How are you going to pay for it?**

The core costs of setting up and operating a basic computer training center and providing a regular schedule of classes don’t have to be outrageous, but they’re real and must be planned for.

Chapter 8 discusses some aspects of fundraising strategy, including partnerships and using data to document results and tell your story.

For purposes of this planning checklist, it is important to develop a specific minimum budget that will cover at least the following costs for your planning period.

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<tr>
<th>Expense</th>
<th>Cash</th>
<th>In-kind or Donated</th>
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<tbody>
<tr>
<td>Occupancy (rent, utilities, liability insurance)</td>
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<td>Phone</td>
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<tr>
<td>Internet</td>
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<tr>
<td>Hardware and software: Acquisition and maintenance</td>
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<tr>
<td>Furniture</td>
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<tr>
<td>Printer supplies</td>
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<tr>
<td>Training staff if paid (payroll or contractual)</td>
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<tr>
<td>Any financial support for volunteers, e.g., transportation</td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
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If a particular cost is provided in-kind or donated, estimate the value and put it in the budget anyway...you’ll want to count it as a matching contribution to show to potential funders.
6) How will you teach?

Effective approaches to teaching digital literacy range from highly structured classroom training to one-on-one “on-request” assistance, and from certified professional instruction to tutoring by community volunteers. Your program’s personnel needs will depend on the approach you adopt, but in turn, that approach may depend on the resources you find available as well as the needs of your community.

Here’s a partial list of approaches adopted by various digital literacy programs, with examples:

**Formal classes with a paid professional instructor**

For a program whose sponsor is able to hire and manage employees or contractors, this is the most efficient approach. A paid instructor can be expected to show up reliably, bring a professional level of skills and knowledge, follow a systematic teaching plan, keep good records and so on. Of course it’s also the most expensive approach and imposes an ongoing fundraising obligation on your leaders and other staff, if any. If you don’t know how you’ll sustain a paid-staff model, it’s probably not a good idea to start with it.

Some digital inclusion programs have had success with “staffing” their classes with national service volunteers, e.g., Americorps. This is less expensive (per person) than ordinary staffing, but it’s not cost-free—it often involves matching funds, for example—and it means taking on significant planning and support duties. Also, individual national service participants are usually available for a year or less, so inexperience is built into this approach.

**Formal classes with volunteer instructors or support**

Don’t underestimate the possibility of finding very effective volunteer teachers within your community or at local businesses, colleges or partner organizations. Maybe you’re one of them! Running a program with volunteers is usually the most financially sustainable approach, but it involves challenges that may be more difficult than fundraising.

To start with, organizations that rely on volunteers often find they need paid staff to find, recruit, train and manage them. A full-time volunteer is rare, so if you’re offering multiple classes you’ll probably need not one but several instructors and ensure you’re maintaining consistent content and quality in its curriculum keeping good records of class attendance and other pertinent data.

Many digital inclusion programs have found they can sustain a limited professional teaching staff but engage volunteers to add capacity, supplement class instruction with personal tutoring and manage administrative tasks like signing students into class. One advantage of this approach (aside from engaging more supporters in the work) is that the teaching staff can manage, support and schedule their own “team” while remaining accountable for all aspects of the class. In some cases, a volunteer corps (especially community volunteers) is a handy source of up-and-coming candidates for paid instructor openings when they occur.

For more guidance on running an effective volunteer program, see Appendix 3: Tips and tricks for running a program with digital literacy volunteers.
One-on-one instruction

Not all digital literacy programs are based on classes. Some digital literacy programs offer basic digital skills instruction on a one-on-one, on-demand basis. In community-based organizations, specific drop-in times are identified for one-on-one instructions. In libraries, this sometimes takes the form of library staff being available to respond immediately to patrons who ask for help and scheduling future help for the community member when needed. In some cases, libraries have created special paid or volunteer positions or invited partner organizations into the library to assume this role.

In partnership with an NTEN and Google Fiber Digital Inclusion Fellowship, SLCPL launched The Tech League\(^1\) for community members to receive one-on-one tech assistance. This digital inclusion initiative uses community volunteers as Tech Mentors to build a more digitally inclusive community through workshops, events and classes. The Tech Mentor volunteer positions are co-sponsored through a partnership with the Applied Technology Foundation, Cotopaxi and the Salt Lake City Public Library.

The Tech League is heavily focused on helping underrepresented groups learn and understand how to use technology to support their personal or professional goals and improve the quality of their lives. The library leverages its community partnerships to reach community members where they are and customizes services to best meet their various technology needs. Examples of programs supported through the Tech League include:

- In partnership with the International Rescue Committee, Tech Mentors support refugee families recently resettled into the Salt Lake City area and empower them to understand the power of technology.
- Library staff and Tech League volunteers work with community partners to reach community members to ensure that underrepresented groups develop digital literacy skills. Community partners include a youth resource center, senior centers, drug rehab centers, homeless service providers, elementary schools and more.

Community Tech Network\(^14\) offers drop-in hours with volunteers staffing the lab. One-on-one instruction happens ad hoc during drop-in times where learners can get their questions answered. Community Tech Network calls it “responsive tutoring.” After returning a few times, the learners get to know the trainers and build trust. Over time the learner feels comfortable sharing more about their needs and challenges.

The Bossard Memorial Library (Gallipolis, OH) offers a Book-a-Librarian program they titled “Tech Tutor,”\(^16\) through which community members can book a one-on-one technology training session with library staff on a variety of digital skills and receive customized guidance and support. Appointments are educational in nature and cover a wide range of topics, including computer basics, word processing, accessing the library’s online resources, using social media and more. Sessions are one-hour long, and community members can register for as many as they need. Prior to their session, community members read and sign a Tech Tutor Agreement, which states that during the session a staff member will answer questions to the best of their ability but will not do the work for the community member.

The Wash and Learn Initiative\(^17\) (WALI, led by Libraries Without Borders (LWB), is a partnership between local libraries and community-based organizations (CBOs) to bring library resources and programming into laundromats. These laundromats are redesigned to include an internet connection, laptops and/or tablets, books and bookshelves and other educational materials. Public-use devices like laptops and tablets feature curated web browser homepages and simple user interfaces designed for users with low digital literacy. Partnering libraries and CBOs commit to providing a minimum of four hours of in-person programming a week, turning the available technology into a dynamic and effective, community-oriented space that meets the needs of customers. To date, LWB has successfully set up libraries in laundromats across eight states, reaching communities with limited literacy skills and poor access to technology, internet and other digital tools.

FREE DIGITAL SKILLS TRAINING MATERIALS

If you need curriculum ideas and materials for any of these purposes, there are many free sources. Here are some places to start:

- **DigitalLearn.org, Gail Borden Public Library and PLA**: A “one-stop shop” for computer and technology training for computer basics, hardware, software and applications as well as job search resources.  

- **Digital Literacy Pathway, Project Compass, WebJunction**: A guide to offering basic computer training in your library that may help you decide how to plan and present your offerings. It provides a step-by-step guide through identifying your community’s needs, finding suitable training materials and partnering with other organizations that may be able to help you succeed.

- **GCFLearnFree.org, GCF Global**: Website with free resources and tools for learners to acquire necessary skills for 21st-century life. From Microsoft Office and email to reading and math, the site provides more than 180 topics, with more than 2,000 lessons, 800+ videos and 55+ interactives and games.

- **Mozilla**: Free and open source tools and resources to teach learners how to read, write and participate on the web. Materials range from web literacy basics, coding, protecting your data and more.

- **Techboomers.com**: A free educational website that teaches older adults and inexperienced internet users with basic computer skills about websites. Provides a vast array of articles, tutorials on 21st-century online platforms, tools and social media.

- **Tech Goes Home (TGH)**: A variety of digital tools, classes and programs geared toward learning for schools, community, early childhood and small businesses.

- **Technology Classes and Workshops, Denver Public Library**: Robust resource for technology classes and workshops on a range of topics from 3D printing to computer basics to Javascript. Their website includes lesson plans, handouts and supplemental materials.

If you can’t find what you are looking for with those resources, try NDIA’s digital inclusion library, a collection of documents, reports, teaching aids and other assets used by digital inclusion practitioners, or Partnership for Bridging the Digital Divides’ collection of links to digital literacy training materials.

Note: Many of these sites have lessons or links to resources in Spanish and other languages.

A growing number of digital literacy programs are using the Northstar Digital Literacy Assessment to pre-assess new students’ skills, track and test their progress, and provide them the opportunity to earn a recognized basic-skills certification. Students have free online access to Northstar’s 10 separate basic skills assessments. Training programs can use the free online assessments for most purposes, but for a modest annual fee a nonprofit center or library can also become an authorized testing center with the ability to offer Northstar skills certifications to students and to access and manage students’ results through a dedicated portal.
CHAPTER 5:

AFFORDABLE INTERNET ACCESS

True digital inclusion requires “affordable, robust broadband internet service” without having to leave home. Users should have access to sufficient bandwidth to manage the full range of normal online applications and tasks, including K-12 and post-secondary schoolwork, job search, health record access, online banking and commerce, social media and reasonable access to entertainment sources, at home. This means the ability to use the internet via desktop or laptop, not just a smartphone, and to do so without oppressive data caps. Households should be able to maintain this quality of broadband access at a cost they can manage without undue financial hardship.
These modest standards are very difficult to meet with commercial ISP service. In most U.S. communities where broadband is readily available, a basic home internet account (cable or DSL) costs between $55 and $85 a month. This is clearly beyond the financial reach of many lower-income households. According to the U.S. Census American Community Survey, only 51% of U.S. households with incomes below $20,000 had home broadband subscriptions (including mobile data plans) in 2017, compared to more than 90% of those with incomes above $75,000.

Helping community members to get internet access at a cost they can afford is probably the most challenging digital inclusion goal a community can undertake. Local digital inclusion programs have responded to this challenge in dozens of ways, any of which may provide a useful example for your efforts. Generally they fall into the following broad categories:

- Helping eligible community members to find and sign up for discount Internet programs, where that’s possible;
- Providing free public access computers and Wi-Fi access inside public facilities; and
- “Community networking,” including
  - Free Wi-Fi access in public spaces
  - On-commercial, free or affordable networks serving specific groups of community members, like tenants in a particular public housing estate
  - Large-scale public network initiatives that create new broadband options for entire communities.

HELPING ELIGIBLE RESIDENTS SIGN UP FOR AVAILABLE DISCOUNT INTERNET SERVICES

AT&T, Comcast, Charter Spectrum, Cox, Altice and some smaller internet service providers currently offer home broadband at discounted rates for certain low-income customers. Eligible groups of consumers vary among the providers, and the offers are, of course, limited to the respective providers’ wireline service areas.

In addition, Sprint has a program that works with certain local school districts to provides up to 3GB 4G mobile data accounts to low-income students, and two nonprofit resellers, Mobile Citizen and Mobile Beacon, make Sprint 4G mobile data service to income-eligible customers at very affordable rates. Considering students’ needs often go beyond needing 3GB, any solution with a data cap is not ideal but realistically, sometimes it is all that is available.

Details of these and other discount internet programs can be found in NDIA’s Discount Internet Guidebook.

Where discounts exist, community digital inclusion programs have found that sign-up assistance can be an effective tool to help some low-income consumers get affordable home connections.

PROVIDING FREE INTERNET ACCESS SITES INSIDE COMMUNITY FACILITIES

In most communities the library is the first place community members turn when they need a public-access internet computer—and for good reason. U.S. libraries maintain hundreds of thousands of public workstations that provide their patrons with hundreds of millions of user sessions annually. For instance, in FY 2015, public libraries reported 294,319 public-access Internet computers and 300.65 million user sessions.\(^{32}\) They also typically offer fast, free Wi-Fi access inside their buildings and often make laptops or tablets available to patrons so they can take advantage of it.

There is an extensive literature of operational and policy guidance for library public-access facilities. A good place to start exploring is WebJunction.\(^{33}\)

Local organizations and institutions other than libraries sometimes decide to create free computer and internet access inside their facilities. These include low-income housing providers, community social service and recreation centers and community-based technology programs, among others. In some cases these efforts serve specific groups, such as tenants, program clients or trainees rather than the broad public; in other cases they’re intended for the general public but in a particular underserved neighborhood or community. A computer lab created primarily for a training program or for students on a campus might offer “open lab hours” as a public service for the neighbors.

Other resources offering more tips and tricks:
- TechSoup\(^{37}\)
- American Library Association\(^{38}\)


From NDIA’s Discount Internet Guidebook:
There are various methods that organizations use to get community members to sign up for discount internet offers. Many of the tactics work in tandem with each other and are not as effective in a siloed method. For example, flyers, leaflets and other signage do not work well alone. They are simply a gateway to getting the word out about the discount internet offers or they reinforce verbal conversations.

It is very important to meet community members who are in need of these services in trusted spaces. Some examples include:
- Encourage resident services representatives at housing authorities to talk to their residents about discount internet offers during community events or when new residents move into their housing units.
- Attend parent/teacher events at schools as a method of reinforcing written materials sent home with students.
- Speak directly with community members who use public computers in spaces such as the public library or community centers.

Interpersonal communication is very important at these events. Community members must trust the messenger in order to have a meaningful conversation about low-cost internet offers. Many practitioners stated that simply having a representative from the ISP at community events is not a strong method for acquiring participants in discount-internet offers programs. The discount internet offers are designed to help a specific population and require one-on-one consultation.

If your digital inclusion program is considering setting up a new public access computer lab and you haven’t done it before -- or even if you have -- we recommend starting with the Community Technology Network’s “Computer Lab Installation Checklist”.\(^{34}\)

Two other good but quite different introductions to setting up a computer lab are wikiHow’s “How to Build a Computer Lab: 15 Steps (with Pictures)\(^{35}\), and “How to Create a Public Computer Center” from New America Foundation’s Open Technology Institute\(^{36}\).
FREE WI-FI ACCESS IN PUBLIC SPACES

Community members who have personal internet devices, but not internet access at home, can benefit significantly from free Wi-Fi service in public places like parks, civic and commercial areas, public buildings like recreation centers, community college campuses, transit stations and stops, and so on.

Free public Wi-Fi enables people with mobile internet devices—including the many low-income people who have smartphones but very limited data—to use internet sites, services and apps without regard to data charges. Free public Wi-Fi also expands access for people who have laptops or tablets but no home internet access (including many low-income students in schools with one-to-one device programs).

1) Created by public institutions

While not a substitute for affordable home broadband, reliable free Wi-Fi in public spaces can be a valuable interim digital inclusion tool for local governments and other institutions that control those spaces and can include public access points in their overall technology plans and budgets. Of course that tool is more effective if “connected public spaces” are widely distributed, especially in communities where they’re most needed, and are made convenient and safe for users.

Many city governments have installed public Wi-Fi in public service areas such as city hall and recreation centers. Some have been more aggressive.

Examples - Public access Wi-Fi provided by local governments

Washington, DC’s municipal government has deployed more than 600 Wi-Fi hotspots for public use throughout the city, including exterior hotspots in many locations including city parks. There’s a map on the DC.gov website as well as free smartphone apps to help community members and visitors find a hotspot.39

The City of Boston’s “Wicked Free Wi-Fi” includes 299 public access points at locations throughout the city.40

San Francisco provides public Wi-Fi in 32 “parks, plazas and open spaces.”41

Institutions with campuses like community colleges, which often have exterior Wi-Fi service for their students and employees, can create a valuable access opportunity for other community members, either by extending the range of their networks to public “edge” areas or by welcoming the public for on-campus use.

Examples - Public access Wi-Fi provided by local governments

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San Francisco provides public Wi-Fi in 32 “parks, plazas and open spaces.”41

Cleveland’s Cuyahoga Community College offers both on-campus and extended “guest” access for the public on its Metro Campus, located in the neighborhood with the greatest concentration of public housing in the city.

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Public libraries, whose Wi-Fi is designed for public use inside their buildings, often find that they’ve inadvertently created exterior hotspots as well, with users on their steps or in their parking lots after hours. This creates a dilemma for many library leaders: Safety and security (Do we want people gathering around the library when we’re not here to supervise?) vs. need and public service (People without home internet access, especially students, need to do online tasks at times when we’re not open, and it’s appropriate and easy for the library to make that possible.) Some have decided to make the best of an opportunity.

If you’re investigating digital inclusion strategies on behalf of a local government, a library system or another public institution, it’s worth taking a hard look at your opportunities to create free public Wi-Fi opportunities using the spaces and network resources at your disposal.

Other digital inclusion advocates—community leaders and ordinary citizens—shouldn’t hesitate to ask the leaders of your community’s public institutions to look for those opportunities. After all, you’re the public.

2) Created by nonprofit organizations and individuals

Control of public spaces and existing networking capacity mean that municipalities and other public institutions are often the natural candidates to deploy and support public hotspots, but they are certainly not the only ones doing so. Community-based organizations, business associations and even individuals have taken the lead to create public Wi-Fi opportunities in many communities.

“We know our Wi-Fi in the parking lot is an access point after we close for people who do not have internet access at home. We also have a charging station outside.”
- Debbie Saunders, Executive Director, Bossard Memorial Library, Gallipolis, OH
As many small-business owners can attest, offering free Wi-Fi to everyone in a small area is pretty straightforward. You just need:

- An adequate internet connection from a provider whose terms of service permit you to share it;
- An off-the-shelf Wi-Fi router/access point mounted somewhere that’s fairly accessible (i.e., without major obstructions) to the prospective users;
- A place to plug the router in; and
- A plan for managing the equipment and users’ access to it (e.g., creating and sharing a password.)

There are costs and work involved, but nothing that the average consumer technology user can’t handle.

Transferring that simple process to a public hotspot is harder than it looks.

- You need a source of internet service whose terms of service do not forbid you to share access with users outside the premises to which the account is registered. Most ISPs’ terms of service do include that prohibition. If the Wi-Fi is meant to be available beyond your yard, parking lot or front sidewalk, you could have a contractual problem with your ISP.

- You need a place to mount your access point(s) that’s within the antenna’s effective range of the intended users (no more than 400-500 feet, usually less); with as little foliage or other obstacles, especially metal, in the path from antenna to users; and able to be connected to your internet and to a power source. If you can cover the area you want to “light up” by putting a router/access point inside a window overlooking the area, you may be home free. (Glass doesn’t impede Wi-Fi.) Otherwise you’ll have to think about more complicated solutions like exterior antennas, mesh networking and power-over-ethernet. These aren’t necessarily expensive, but they add some set-up complexity and network management issues. This is where you or someone in your group may need to learn some new skills.

- If you build it, they’ll probably come—maybe lots of them. Consumers have gotten used to checking for Wi-Fi availability to avoid cell phone data charges. Heavy use by people you don’t know may be exactly what you want, but it means that your public Wi-Fi must be managed. Someone needs to check it regularly to make sure it’s operational, that its capacity is reasonably consistent with its user load and that the use is generally within appropriate guidelines. There are tools available for this purpose.
SMALL-SCALE NON-COMMERCIAL, FREE OR AFFORDABLE NETWORKS

In the absence of other truly affordable home internet options, digital inclusion initiatives have long included the creation of non-commercial networks to provide home broadband access for apartment complexes, small neighborhoods and the like. While most of these small community networks are based at least partly on Wi-Fi, there are are recent examples that use LTE cellular systems as well as varieties of DSL.

Public housing authorities provide free home Internet access for their residents through local networks in a number of communities—either supporting initiatives by nonprofit partners, or building and maintaining networks themselves. This trend has been encouraged since 2014 by the Department of Housing and Urban Development’s “Connect Home” initiative, whose “Connect Home Playbook” characterizes the approach as: “Free wireless internet reaches every unit (like a dorm or hotel).”

LARGE-SCALE PUBLIC BROADBAND NETWORK INITIATIVES

The U.S. has recently seen an nationwide explosion of new, local public or nonprofit internet service providers. These come in a variety of sizes and technologies, but the most common is a public enterprise—often a municipal utility or rural cooperative—serving a small city or rural area with very fast internet service delivered through an optical fiber network. These local public broadband services aren’t necessarily affordable and don’t automatically promote digital inclusion for low-income community members. But some are finding ways to do exactly that.

Examples - Small-scale non-commercial, free or affordable networks

The Connect Home Playbook points to a project of Washington, DC’s dcConnectHome initiative in which the DC government and the DC Housing Authority wiredly linked over 1,700 residents to free internet service through DC-Net, the municipal broadband network.

The Fresno (CA) Housing Authority is deploying a mesh Wi-Fi network as part of its “GetConnected Fresno” initiative. The network currently provides free internet service for 554 housing units in 64 buildings at six FHA properties. Its internet connection comes from Central Valley Independent Network, a local independent fiber ISP. Fresno Housing Authority recently published a “Mesh Network Playbook” which shares its networking model in detail.

The San Antonio Housing Authority (SAHA) has deployed free Wi-Fi hotspots in 197 units in three apartment buildings, as well as fifty community rooms, and plans to provide similar connections for more than six hundred additional units in 2019. 2,800 SAHA tenants will have Wi-Fi in their units by the end of 2019. More about SAHA’s effort, including its “Smarti” solar-powered Wi-Fi prototype, can be found in Appendix 4.

Cuyahoga Metropolitan Housing Authority (CMHA), as part of its “Cleveland Connects” initiative, partners with nonprofit DigitalC to bring free or affordable broadband to 460 residents in three CMHA apartment buildings. The partners use a roof-to-roof millimeter-wave wireless network to connect each building to an independent fiber ISP at gigabit speeds, then share that connection with residents in their units, using either Wi-Fi or enhanced DSL technology over the buildings’ internal copper phone lines.
A comprehensive overview and up-to-date coverage of the national community broadband movement is provided by the Institute for Local Self-Reliance at its “Community Networks” website.49

Another valuable resource is Next Century Cities. They represent and support hundreds of cities across the country that are building or operating community-owned broadband, developing policies to govern private 5G deployments and pursuing next-generation broadband for their communities in other ways.50

Both Community Networks and Next Century Cities help highlight community-owned networks that adopt digital inclusion as a goal, using their locally controlled systems to create new, affordable high-speed internet options for low-income community residents. Two of the best-known municipal fiber networks, in Chattanooga, Tenn., and Wilson, N.C., offer models for other communities interested in this approach.

The cheapest regular residential service offered by Chattanooga’s EPB municipal fiber utility costs $58 a month for a 300 Mbps connection. That’s a very good deal but not affordable for many lower-income Chattanooga households. State law severely restricts the ability of EPB and other city utilities in Tennessee to offer lower-cost services to low-income customers. But in line with its priority of using its network to support education, Chattanooga has created a special option for families of about 20,000 students in the Hamilton County schools who are enrolled in the free- or reduced-price lunch program: “NetBridge,” which delivers EPB’s lowest-speed fiber connection for a much more affordable $27 a month.51

The City of Wilson’s “Greenlight Community Broadband” fiber network has a standard internet-only option of 50 Mbps for $40 a month. Through a partnership with the Wilson Housing Authority, that service is offered to tenants in Housing Authority units for just $10 a month.52

51. See Community Network’s article about NetBridge’s 2015 launch at https://muninetworks.org/content/epb-and-chattanooga-will-lower-price-internet-low-income-students.
CHAPTER 6:
AFFORDABLE DEVICES
A major component of digital disconnection for U.S. households is still the lack of a computing device in the home. According to the Table B28003, available in the 2013-2017 American Community Survey 5-Year Estimates, in 2017 about 15 million American households—one out of eight—did not own home computers of any kind, including tablets or smartphones. The percentage of homes without any kind of computing devices was typically 20%-25% for the cities identified by NDIA as 2017’s “Worst Connected Cities,” like Miami, Cleveland and Detroit.

With new Chromebooks and larger-screen tablets available for less than $200, it’s tempting to think that “everyone can afford” some kind of computer. But the reality is that even $200 is too much for many poor families and individuals living on low fixed incomes. That’s why helping people to find very affordable home computers is a key digital inclusion goal in many communities.

In general, there are two “cheap to free” approaches for digital inclusion programs across the country. By far the most common is refurbished used computer systems, which organizations either acquire and refurbish themselves or arrange for their clients to get from partner refurbishers. The other, less common approach is mass purchase of new devices at bargain prices.

**DO-IT-YOURSELF PC REFURBISHING**

It is common for small-scale community digital inclusion programs to receive donations of a few dozen, or perhaps a few hundred, used computer systems from local businesses or institutions. Typically these donations will come with already-cleared hard drives (or with the hard drives removed), and often without monitors. An organization with a hardware-savvy staff or volunteers and minor financial resources can easily purchase some missing parts online and load some kind of operating system to make these donated computers useful for people who need them.

Small-scale DIY refurbishing is often a great volunteer opportunity and lends itself to basic hardware training (e.g., for local high school students). But it’s hard to sustain as a reliable source of computers because most corporate and institutional IT managers now require their “refreshed” systems to go to professional recyclers that can a) guarantee total hard drive wipes, b) pick up by truck at the loading dock, and c) pay for the machines or offer to split revenue from those that are refurbished and re-sold.

Nevertheless, small community do-it-yourself refurbishing efforts sometimes expand to become more ambitious and strategic, without necessarily turning themselves into fully professional or commercial enterprises. This might be linked to another agenda—for example, a hardware skills training program for high school students that attracts both a free workforce (the students) and a special reason for companies or institutions to donate computers.

Jumping into computer refurbishing is not for the faint of heart. If you decide to do so, start with Partners Bridging the Digital Divide’s Resources for Refurbishers. And if it looks daunting, we suggest reaching out to existing refurbishers for advice or partnership.

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WORKING WITH ESTABLISHED NON-PROFIT REFURBISHERS

A number of communities across the U.S. have one or more fully professional, nonprofit computer-refurbishing organizations. These organizations are big enough to compete for large-scale supplies of out-of-service hardware from corporate and institutional sources but exist for the purpose of getting refurbished machines into the hands of schools, international non-governmental organizations and low-income households.

Many (but not all) are members of the Alliance for Technology Refurbishing and Reuse (AFTRR), a project of the National Cristina Foundation. AFTRR and many of their members are NDIA affiliates and are happy to partner with local digital inclusion programs to help their participants get low-cost or even free home computers with warranty protection and other support. If you’re considering the creation of a digital inclusion program for your community with a focus on refurbishing computers for low-income households, we strongly urge you to consult with existing nonprofit refurbishers about your plans.

The number of organizations offering low-cost refurbished equipment to the public for purchase or donation is growing by the year in an effort to meet the ongoing need for access to affordable digital devices that match the processing needs for modern technological software. The availability of devices is not limited to desktop or laptop computers as many groups also provide refurbished cell phones, handheld tablets, computer accessories. Many leader organizations in the refurbishing industry were found to align in six key areas of service delivery.

Connecting for Good, based in Kansas City, is a wraparound digital inclusion provider offering digital literacy training, internet access and refurbished computers for its clientele. As one component of the organization’s programming is refurbishing, Connecting for Good is an example of how organizations can introduce a device-refurbishing program at a small to intermediate scale. Also, as a registered Microsoft Refurbisher, the organization cleans and upgrades donated equipment through a model that offers STEM job training for computer-refurbishing volunteers and interns before the devices are sold to those in need at a significantly discounted rate for computer equipment.

Greater Charlotte’s E2D (“Eliminate the Digital Divide”) was founded in October 2012 when 12-year-old Franny Millen asked her parents two questions:

1. How can all kids in the Charlotte-Mecklenburg School District do their homework and projects successfully if some of their families are too poor to own digital technology?
2. What are we going to do about it?

To date, E2D has provided about 8,500 laptops to families in their region, doubling within about a year. They are a licensed Microsoft refurbisher, allowing them discounted access to Windows and Office, which are typically installed on all of their computers. At their Distribution Days (D-Days) held twice a month at a local high school, their one-on-one training often goes beyond getting to the student portal, touching on everything from Google Translate to setting up online banking with the users, all depending on need and time available. To ensure they serve as many families as possible, E2D has provided digital literacy training in Spanish and plans to initiate a new, much more expanded English as a Second Language (ESL) digital literacy training program in 2019. They also connect families with low-cost broadband options with a special focus on serving homeless and otherwise displaced students with hotspots that can move around with them.

1. Provide precise criteria for the types of devices that eligible and ineligible for donation.

2. Obtain certification in technology recycling and the destruction of information housed on donated equipment.

3. Stipulate clear eligibility guidelines (based on poverty level or participation in certain government income-support programs) for who is eligible to purchase discounted equipment.

4. Highlight tax deductible opportunities for individuals and organizations donating equipment.

5. Offer multifaceted approaches for how and where devices can be donated and purchased (e.g., online, in-person or at community events).

6. Design refurbishing programs that support digital literacy for employment by training device refurbishers from the local community.

Examples - Three of the largest and most established non-profit refurbishing organizations

**PC for People**

“Technology for individuals and non-profits. E-waste recycling for businesses.”

PCs for People\(^{60}\) is a national computer refurbisher based in Boulder, Colo., that offers devices ranging from $65 for a desktop computer to $265 for laptops. Over the last two decades, PCs for People has refurbished more than 70,000 computers and recycled millions of pounds of electronics, therefore offering affordable services to increase digital equity while also protecting the environment by reducing the rate of improper technology waste disposal. The organization supports refurbishing services through staff and a robust group of volunteers that include high school students and general members of the community.

**Kramden Institute**

“Providing technology tools and training to bridge the digital divide.”

The Kramden Institute\(^{61}\) launched in 2003 and provides refurbishing services from its headquarters in Durham, North Carolina. Kramden Institute refurbished 3,500 donated computers in 2017 and sells discounted devices through its online Ebay store and in-person at their offices or device drives hosted in the community. Unique to Kramden Institute, the organization partners with the telecommunication company CenturyLink to accept donations at their offices across the state of North Carolina.

**Human-I-T**

“Shrinking the digital divide, one piece of technology at a time.”

Human-I-T\(^{62}\) is a newer, well-known device refurbisher making significant strides in the community to close digital device divides. Since its inception in 2003, Human-I-T has been supported by hundreds of volunteers who refurbished approximately 1,400 computers in 2017. The organization clearly defines eligibility qualifications for purchase. They explicitly include seniors, veterans and individuals with disabilities, known groups experiencing higher rates of digital inequity. Additionally, the organization provides technical support for clients who purchase a device through their organization.

**MASS PURCHASE OF NEW HARDWARE**

When a budget allows, some digital inclusion programs opt to purchase hardware new as a bulk purchase, which keeps the price within their range. This strategy entails some ongoing financial support, so new organizations that want to adopt it need to carefully consider the fundraising requirements.

**Tech Goes Home**,\(^{63}\) a digital inclusion organization working with low-income families in the Boston area since 2005, has a different approach to providing computers for its participants. It purchases Chromebooks in large numbers at wholesale prices and resells them to graduating families for $50. This approach offers the households a brand-new device with a new-machine warranty (not serviced by Tech Goes Home).
CHAPTER 7: TECH SUPPORT

Even people who have limited digital skills and little or no computer experience will find themselves trying to use digital devices such as tablets, smartphones, e-readers and health trackers. Navigation of these devices is sometimes included as an element of basic digital literacy training, but libraries and community training centers are often asked for immediate, one-time assistance by people trying to use specific functions and apps.
In addition, community training programs are commonly approached—by their own students and other community members—for help with personal computer problems, ranging from virus infestations to hardware repairs.

This kind of general technology support for the community is inherently valuable for promoting digital inclusion and an effective public engagement mechanism for programs offering traditional digital inclusion services.

A growing number of digital inclusion providers now schedule regular community tech support events, inviting the public to bring in their digital device problems and questions for personal hands-on assistance. This assistance is often provided by tech-savvy volunteers recruited from schools or businesses.

Examples - Tech Support

ASC3 Super Tech Days
Ashbury Senior Community Computing Center (ASC3) is a digital inclusion provider serving thousands of clients in the greater Cleveland urban region. ASC3 “Super Tech Days” are an opportunity for members of the community to receive one-on-one help with using a digital devices. Participants bring their devices, from digital cameras to laptops, and are matched with a volunteer student from Case Western Reserve University to receive tailored use training. The event is open to the public and held three times a year at one of the organization’s computer centers.

Winston Net’s Quarterly Community Tech Nights
Winston Net of North Carolina, one of the nation’s longest-standing digital inclusion providers, partners with technologically savvy staffers from the ICT company Inmar to offer a quarterly free evening of technical support to local residents. Community Tech Nights pair skilled trainers with participants to work one-on-one in troubleshooting and overcoming their challenges with using technology devices. The events are held at accessible local community centers throughout the year.

Oasis Institute’s Ask A Techie
Oasis Institute works to support healthy aging across the lifespan in more than ten localities nationwide since 1982. One cog of the organizations’ services is to support the digital literacy needs of its aging clientele. Oasis piloted the no-cost “Ask a Techie” program to St. Louis residents in 2015. The program has served hundreds of residents at the regularly held events offered at varying locations, including municipal offices. Residents come with a variety of concerns that inhibit their ability to use various forms of technology and work with a volunteer to address concerns that include updating passwords or generally figure out why “something doesn’t work.” The organization highlights the program through the National Techies Day in early October.

Connect.DC’s All Hands On Tech
The District of Columbia supports residents’ digital literacy needs by regularly offering free technical support days at a rotating group of public and nonprofit agencies throughout the city. These approximately five-hour events enable residents to choose from a detailed list of service offerings with an estimated time of completing for each. Residents in need tech support can obtain information by texting a SMS short code as well as reserve a consultation in advance of the event by completing a brief online questionnaire.

CHAPTER 8:
BUILDING LONG-TERM SUPPORT FOR YOUR DIGITAL INCLUSION PROGRAM

No matter what your start-up program’s focus, strategy, sponsorship and initial support may be, a time is very likely to come when you’ll need funding and other material support to keep it going and growing. The more successful you are—defining “success” as the number of people your program serves—the sooner that time is likely to arrive. Even programs operating within the structures of large, stable anchor institutions, like libraries and community colleges, eventually find it necessary to raise outside money. Small nonprofit programs usually face this need from Day One.
Raising money for ongoing support of community digital inclusion programs is hard. That’s an unfortunate fact, borne out by the experiences of hundreds of NDIA affiliates. The common funding sources for community programs—local foundations, corporate donors, local and state government—are already responding to many competing demands and seldom give priority to issues of digital literacy and access. Where local funding streams for digital literacy and access do exist, they tend to take the form of small and/or short-term grants that provide little stability or opportunity for growth.

Changing this difficult funding landscape is one important goal of NDIA as well as a number of local digital inclusion coalitions (see NDIA’s Digital Inclusion Coalition Guidebook68). But this kind of advocacy is not in the scope of this manual nor is the general topic of nonprofit fundraising and sustainability, for which many excellent resources are already available.

But we do want to share two strategic approaches by which community digital inclusion programs can significantly improve their chances to gain the outside support they need for the long haul. Those approaches, discussed at greater length in the next two sections, are:

1. Strategic alliances with business and community institutions and local governments that a) stand to gain directly from the success of digital inclusion work and b) have the ability to fund that work directly and/or to influence the funding decisions of others.

2. A systematic, aggressive data strategy for your program to persuasively demonstrate its value... to the people you serve, to the advancement of better-recognized community priorities and to the specific interests of strategic allies suggested in the previous bullet point.

**STRATEGIC ALLIANCES**

**1) Community partners**

In thinking through the strategic questions outlined in Chapter 3, it’s important for a start-up program to consider how it can build collaboration with like-minded organizations and leaders into its own leadership structure—whether that means a new organization’s board of directors, a program advisory committee or just the partners engaged in a project. There are several good reasons to pay attention to this question. Inviting other organizations to assume some ownership of your program means you can get the benefits of their experience, reputations and social networks; it signals to others in the community, including funders, that you’re operating in a cooperative and transparent manner; and it helps create opportunities for substantive program collaboration.

Even where a new program is being launched within an existing institution that already has a well-established leadership structure—like a public library system—it’s a good idea to ask other organizations to engage with the effort in some way. Partners may bring you new marketing insights and users, help recruit volunteers or provide complementary services to your participants that you can’t. For example, most public library systems aren’t in a position to help their digital literacy trainees acquire refurbished computers or sign up for a discount internet provider, but community partners often can.

Partnership and collaboration with other organizations that care about digital inclusion should be in the DNA of community programs.

**PRACTITIONER ADVICE COLUMN**


Chattanooga—a mid-size city in the heart of the South—is Gig City. We’re not Silicon Valley, our metro isn’t in the millions, but our infrastructure is as advanced as anywhere in the world. Thanks to EPB, our electric power board and municipal ISP, 10gb/s fiber connections are now available anywhere there is electricity.

Gig City is so much more than a brand, however. It’s about what that connectivity means, and can mean, for our residents. We know that people have been left out, and will continue to be left out, unless we do something about it—particularly when you consider the breadth of the digital divide between residents with no connection to those moving at gigabit speeds.

There’s no reason to reinvent the wheel (at least not right away), and Chattanooga didn’t—community leaders looked at organizations doing great work across the globe and landed on Boston’s Tech Goes Home as a great fit for our community and a practical, replicable way to get started.

It was an ideal place to begin for a host of reasons, but most importantly was how it explicitly involved other partners in digital inclusion work—more than 80 nonprofits, schools, libraries, churches and neighborhood groups have hosted classes. We knew that digital equity couldn’t be the work of just one organization; it’s too varied and complex for a single entity to manage, let alone solve. Growing a diverse community of digital equity advocates has been central to our community’s successes.

That network has not only increased the scale of impact, it’s allowed the work to evolve. Our partners at Signal Centers, Inc., for example, originally hosted an early childhood Tech Goes Home course. As that relationship grew and their experience and expertise brought to light unaddressed areas of inequity, they became the central partner on a new inclusion effort focused on accessibility and disability services.

Grant opportunities have also been central to this evolution, although not for the most obvious reason. While funding can’t be ignored, the opportunities these application cycles provide for convening wide circles of stakeholders around the table—as well as to include digital inclusion strategies in broader equity efforts—have actually been more important. This approach to collaborative ideation, involving practitioners and participants from the start, continues to develop new partnerships and expand the scope of digital equity and inclusion work in Chattanooga (with or without those original sources of funding). Work around early education, for example, evolved exactly this way thanks to an IDEO challenge we did not win.

We’ve taken that same multi-stakeholder approach to Smart City work, as well. From community design and involvement in Smart City projects to deploying relevant infrastructure, like Wi-Fi nodes, in ways that can support research or data goals and connectivity within disconnected communities simultaneously. You can tackle both at once, and our experience has shown it actually works better when you do.

Finally, a central piece to the Chattanooga story is the involvement of Hamilton County Schools. A vibrant digital equity ecosystem includes informal learning spaces, but it can’t ignore public schools—indeed, they inherently provide robust infrastructure to support equity and inclusion efforts within the most disconnected communities. And it’s through partnering with schools that one of the best low-cost home internet plans around came to fruition.

EPB’s NetBridge offers low-income families with (now) 300mb/s service at cost, or $26.99 per month. With EPB as competition, too, Chattanooga and Hamilton County have been able to attract additional low-cost providers, all offering $10 per month service.

From connectivity drives at school registration to deploying advanced gigabit education applications in public schools, partnerships with public schools are essential. In preparing this next generation for a future we can’t predict, we must ensure we’re actually closing the digital divide—and not just shifting it.

Full participation in everything this 21st century has to offer depends not just on access to the on-ramps, but control over the destination.

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PRACTICIONER ADVICE: Tom Esselman, CEO, Connecting For Good, Kansas City, MO

Since 2017, CFG has held an annual ‘State of Digital Inclusion’ Breakfast Event open to the community, as an end of year fund and friend raiser. Each year, the breakfast has a theme designed not only to inform the public about the impact of digital inclusion practitioners, but also to reinforce the trends and topics that are garnering more regional and national support. In 2016 the theme was ‘The Giving Tree--Digital Inclusion As An Ecosystem’ (combining the roots of technology access with the branches of life-improving digital education and skills). In 2017 the theme was ‘MoneySmart--Digital Inclusion In the Financial Community’; and in December of 2018, the theme was ‘Workforce Development-- ‘Digital Inclusion and the Pathways to Paychecks’

2) Strategic allies and investors

There’s another kind of relationship that could be just as important to your program’s sustainability: Corporations and institutions stand to gain directly from the success of your work (whether they know it or not) and have the resources to make significant investments in that work or to help open doors for those investments from others.

Three industries that meet this criteria are banks, healthcare systems and government, especially social service departments. Are there similar possibilities with other business or public service sectors? Undoubtedly, there are.

The point here is that community digital inclusion programs are, simply by the nature of the work, solving problems and creating value for some industries.

Your program would be wise to put some serious effort into:

- Getting the attention of for-profit and nonprofit entities that would benefit from your digital inclusion work;
- Helping them understand how they gain from your success and
- Making the case for them to invest in your greater success for their own benefit.

Banks

Digital inclusion can empower previously unconnected bank customers to start using online banking tools. This enables their banks to keep them as customers, even while consolidating branches in ways that might make it harder to “bank in the branch.” And a bank’s investment in community digital training or network access may now count (dependent upon the regulatory authority) as a “qualifying activity” for Community Reinvestment Act credit,81 which every U.S. bank needs to pass its federal regulatory reviews. For a full explanation of why digital inclusion activities should be a high priority for financial institutions, see NDIA’s comments submitted to the Office of the Comptroller of the Currency.82 Digital inclusion programs are starting to get the attention of some major banks as well as regulators. For the most part, this is still due to the focus of the digital inclusion programs overlapping with priorities of financial institutions, particularly workforce development and education.

Early advocates of this new resource for digital inclusion efforts include the Federal Reserve Bank of Dallas, which released Closing the Digital Divide: A Framework for Meeting CRA Obligations in 2016. In it, they asserted, “The CRA provides a significant opportunity to help close the digital divide across communities while simultaneously benefiting financial institutions and improving economic stability.” In addition, Fig. 2 provides their visual representation of the “three legs of the stool” of broadband adoption.

**Fig. 2.** Broadband adoption diagram from: Closing the Digital Divide: A Framework for Meeting CRA Obligations.

### Healthcare systems

Digital inclusion can empower thousands of previously unconnected patients in a typical metro area or rural region to research their health-related questions and start using the online patient health record and healthcare management tools offered by most hospitals. Hospital systems have invested many millions of dollars in these tools, and they want their patients to use them—including the low-income patients who are most likely to need training, cheap computers and/or home internet to make that possible. Healthcare providers are currently working with local digital inclusion programs on digital inclusion collaborations.

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Healthcare systems can be influential allies for community digital inclusion programs in the quest for funding from third parties, such as foundations.

Community Tech Network received a grant from Metta Fund, a private health foundation dedicated to San Francisco’s aging population and those furthest from access and opportunity. The grant provides digital literacy and tablets to older adults in San Francisco through a new program called Sunset Tech Connect.86

The Ashbury Senior Computer Community Center partnered with researchers at MetroHealth, the safety-net hospital system in Cleveland, on a pilot MyChart87 patient-portal training program for low-income patients in two clinics, funded by a grant from the Mount Sinai Health Care Foundation. Results were presented at a Gerontological Society of America conference in 2018.

PRACTITIONER ADVICE COLUMN

From Adam Echelman Libraries Without Borders (LWB)

When talking to laundromat staff and owners about partnering, owners often express three key fears:

• They are afraid this initiative will create more work and not yield a profit;
• They are concerned about security, e.g., even if technology is secured, they fear somebody might breaks a window to steal a computer; and/or
• They are concerned this program will bring in non-paying customers and loitering.

The security risk factor may vary by city or neighborhood, but LWB has found that owners of staffed, 24-hour laundromats were less concerned about this than those without staff. Concerns about technology can be assuaged by placing technology in the back of the store, available only to people within the space. Finally, early data from LWB has shown WALI laundromats actually increase profit for the store and decrease clutter because customers are entertained, especially children. Above all, remember that owners are your biggest partner and let them know this is a collaboration, where their insight and business perspective is valued.

Systematic, Aggressive Data Strategy

Collecting your data and keeping your data so you can tell your story might be the most valuable, least expensive and yet most neglected aspect of starting and managing a new digital inclusion program. Your future ability to plan, manage, fundraise for and report on your program will depend heavily on the quality of the information you’re collecting now.

Whether it’s for reporting to your own board or sponsor, writing a grant proposal, reporting to a funder, telling your story to the media or convincing a strategic ally that you’re worth investing in, you will need to document the people you serve, the value you deliver to them and the impact you have on their lives. You will only be able to document those things if you ask, measure and keep good track of them now, while they’re happening.

Program data: Here’s a short list of participant and program data that a digital literacy training program should have in its records.

Participants:  
- Contact information
- Relevant demographics
- Home computer and internet status
- How they heard about you
- Why they came—participants’ own goals
- Any specific information needed for partners (for example: participant’s source of health care, food stamp or Medicaid enrollment, school enrollment)

Program:  
- Skills assessment (before training)
- Classes taken
- Skills assessment (after training)
- Help getting a computer?
- Help getting an internet connection?

Your program needs a system to capture this information consistently, accurately and digitally, from Day One. That doesn’t mean you need to have expensive software; information captured on a spreadsheet is fine and can always be moved to a more sophisticated system later. It does mean taking the time to ask participants to share information about themselves and explain why you’re asking for it. It does mean building consistent skills assessments into your training process and recording the results. And it means making sure the information always gets entered in your system while it’s fresh.

Impact data: Once participants have finished your program, you’ll want to know what value the program had for them. Much of that value is going to develop over time. You need a way to ask... not just immediately, but six months, a year or two years down the line.

Some NDIA affiliates accomplish this by means of telephone surveys. If your program serves a lot of people, this might require extra staff cost. If your student base is very big, it might involve some professional help to create a random sample to call. But if you can credibly document a significant impact on the economic, educational, health, civic or social lives of the people who’ve passed through your program, you’ll find it’s well worth the effort and expense!

In 2012, the Connect Your Community project team designed and led the Adoption Persistence Survey, a large-scale survey of 10,400 program participants nationally that produced one of the largest and most comprehensive datasets representing program participants from a national broadband inclusion program available at the time.88 The survey sample was randomly selected from the programs’ 33,000 trainees and balanced to proportionately represent each of the project’s seven lead partner agencies. A collection of 2,267 completed phone surveys provided insight into program satisfaction, demographic representation, areas of computer use and the impact of the introduction of this new technology on their lives.

This first-ever phone survey designed to measure the longitudinal impact of a digital inclusion training program illustrated the long-term impact of a high-touch community-based training program by measuring previously unconnected participants use of and engagement in online activities of broadband adopters five to six years after completing 30+ hours of basic computer training, obtaining a computer and home internet connection.

PRACTITIONER ADVICE COLUMN

From Dan Noyes, Tech Goes Home

I remember early on in the development of Tech Goes Home someone asking, “What’s your impact?” I recited outputs like the number of graduates and how many new computer we distributed and how many people we got connected. The person paused, and then asked again, “Yeah, but what’s your impact?”

Data work is time intensive, difficult and often nebulous. However, it is incredibly important not only in being able to better tell our story to partners and funders but also in ensuring we are meeting the goals of the organization.

To get at impact, you need to paint a picture (a mother helping her child learn, an unemployed man finding a job, a grandmother video chatting with her grandchildren for the first time) and then use data to support the narrative. The story you tell must have both heartstrings AND data.

Our data collection efforts include an intake survey that captures demographic information and access to technology and relevant skills. A post-course survey informs us what participants learned and explores new levels of engagement. And lastly we do our best to reach all adult participants one year after course completion to discover longer-term impacts of TGH. This is all done via the Internet, text and phone call.

Because of all this, I know that 80% of our families report TGH School was their first time participating in an activity at their child’s school, 35% of TGH Community participants enter the program unemployed and 45% of adult participants’ primary language is not English. All this confirms we are serving the right people and helps paint the clear picture of our participants.

Further, 98% of TGH graduates report that they learned skills during their TGH course that can help improve their lives and 85% of participants without home internet plan to get or got home internet due to TGH. This shows we are meeting our program goals.

Lastly, 93% of students use their TGH device multiple times a week for learning activities, and 84% of adult graduates have used the skills they learned in the program for job-searching and/or at their current job. This tells us we are having an impact on the education and work lives of those we serve.

Each of these pieces of data, along with many more, helps provide evidence about the extent to which TGH accomplishes its goals of improving people’s lives.

“The question digital inclusion practitioners must remember to ask themselves is not always how many computers they have distributed to low-income individuals, families and households or how many digital literacy classes they have held to teach the basics; but has the economic needle really been moved to empower the many still locked into enclaves of impoverishment?”

- Lazone Grays, Jr., IBSA (Topeka, Kan.)
APPENDICES
APPENDIX 1: FEDERAL COMMUNICATIONS COMMISSION’S FORM 477

The Federal Communication Commission (FCC) requires Internet services providers to report several kinds of data every six months using Form 477 with some data made public through regular data releases, usually about a year following the reporting deadlines.

Form 477 Fixed Broadband Deployment Data includes information about the “fixed broadband” technologies that each provider has deployed in each Census block it serves, along with the maximum advertised download and upload speeds provided by each technology to any address within that block. This data is available for download in the form of a very large zipped CSV file for each state and is also shared via a set of interactive maps.

There are serious questions about the reliability of the Fixed Broadband Deployment Data and the accuracy of the statistics and maps the FCC produces with it. Even so, community digital inclusion planners and advocates find this data useful to identify local provider coverage areas, get some idea of local technologies and speeds, and identify major gaps in broadband availability. NDIA has used it to document the digital redlining of poorer neighborhoods in some cities.

Form 477 Internet Access Services Reports provide data on the shares of households in all U.S. Census tracts which actually had fixed broadband service (i.e. wireline or satellite, but not mobile) from the reporting ISPs. This data comes from the providers’ actual counts of customers in each tract who meet one of two download speed benchmarks (10 Mbps and 200 kbps), which the FCC staff totals up and then converts to one of six numerical codes (0 through 5) for its map. A “0” represents zero households meeting the benchmark; a “1” represents 1 to 199 households per thousand; a “2” represents 200 to 399 per thousand; and so on up to a “5” for 800 to 1,000 households per thousand.

Community digital inclusion planners and advocates can download an Excel file with the whole national dataset of tracts and codes and use it to create your own local maps. Connect Your Community in Cleveland has examples of an Ohio statewide map and a local Cleveland city map using Form 477 Census tract household connection data on its website.

APPENDIX 2. U.S. AMERICAN COMMUNITY SURVEY (ACS)

To get an overall picture of the numbers, demographic characteristics, and geographic distribution of your community members who have little or no internet access, you can now turn to the U.S. Census’ American Community Survey (ACS), which now provides household computer and internet data for individual Census tracts. (It used to be available only for entire cities and only for those above 65,000 residents.)

The Census’ American Factfinder\(^{97}\) portal is a powerful tool for finding American Community Survey data for the tracts you need, or for your whole city or county if you prefer.

There are several approaches to getting to your data but they all come down to two things:\(^{98}\)

1. **Identify the geography** you want (Census tract, city, county, etc.)
2. **Find the data table** you want.

ACS computer and internet data can be found in Tables B28002 through B28011 of the 2017 ACS 5-Year Estimates. (There are are also summary tables, S2801 and S2802, which have much of the same information.)

Topics covered in these tables include:

- The share of households with various types of home internet access (dial-up, wireline, cellphone, satellite, etc.) or no access at all (Table B28002);
- Overall computer ownership and internet subscriptions by
  - Households at various income levels (Table B28004),
  - “Persons in households” of various ages (B28005),
  - Race and ethnic groups (B28009),
  - Educational attainment (B28006) and
  - Labor force status (B28007).

ACS Table B28002 provides estimates for the tract or community you select on

- households with cable, DSL, or fiber broadband accounts—i.e., conventional “wireline” connections;
- households for whom mobile devices are the sole home internet service;
- households with other broadband types (e.g., satellite) as well as dial-up;
- households with no internet access at all.

Mobile subscriptions are far more likely to have strict data usage limits and the devices they connect, especially smartphones, also have serious limitations in important use categories like education. So NDIA generally considers “wireline” connections (or lack of them) and “no internet access at all” as the two main indicators of “connectedness” in this ACS table.

NDIA’s national maps of 2017 ACS data on households with wireline broadband access and households with no internet access of any kind are at www.digitalinclusion.org/home-internet-maps.\(^{99}\)

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98. If you haven’t used American Factfinder before, we strongly recommend that you take a look at the “how to” presentation and transcript, or listen to the audio recording, that are linked under “Event Resources” here: https://broadbandusa.ntia.doc.gov/webinar_190220. In the transcript, look at Ryan Dolan’s presentation beginning on page 18.
APPENDIX 3: TIPS AND TRICKS FOR RUNNING A PROGRAM WITH DIGITAL LITERACY VOLUNTEERS.

From Kami Griffiths, Community Tech Network

One thing’s for certain with volunteers—retention can be a challenge. So if you’ll be relying on them as instructors for your digital literacy programming, here are some tips and tricks for running a program with digital literacy volunteers.

Recruiting
The benefit of recruiting a digital literacy volunteer is that you can use the internet to recruit. Some national sites where you can promote your volunteer positions include:

1. VolunteerMatch (most used and beneficial)
2. Idealist
3. Craigslist
4. United Way
5. Hands on Network (Points of Light)

You can supplement your online recruiting efforts with other options, such as:

1. Hanging flyers in and around your location/community
2. Submitting an article or OpEd to your community newspaper
3. Social media posts
4. Making an appearance on local television or radio
5. PSA on a local radio station
6. Working through an association for retired people (AARP, etc)

Longer-term strategies:

- Contact your local high school or college to see if they have a service-learning program or internship program. This a great way to ensure the volunteer will follow through since their grade depends on it. Internship coordinators are responsible for finding good placements for their undergraduate students. So develop relationships with them! Universities have their own websites for creating nonprofit profiles and posting opportunities for volunteers or use sites like Handshake.

- Contact the corporate social responsibility (CSR) person at local companies to see what type of employee engagement programs they have. These programs encourage volunteerism and may even allow employees a set amount of time off to volunteer during the work week when it could be more challenging to fill a volunteer shift.
The Right Fit

One way to improve retention is to ensure a good fit from the start. Here are some questions to consider when evaluating prospective volunteers:

1. Are they a good communicator of complex terms?
2. Do they have a passion for teaching digital literacy?
3. Are they comfortable working with people of different ages and backgrounds? Do they speak the languages needed or have the cultural competency to work with the population you serve?
4. Do they ask questions? If they don’t know an answer, are they comfortable admitting it and using it as an opportunity to look up the answer together?
5. Do they have enough patience to explain the same thing three times in three different ways?
6. Are they interested in technology and know how to use the technology that learners are using?
7. Are they going to be available for the minimum required time or are they likely to leave if they find a job? It’s always a good idea to have your own idea of the volunteer time commitment posted when seeking volunteers.

Feeling Fulfilled

People give their time for a few reasons: to meet people when they move to a new place, to learn new skills, to help people and make an impact, or to change careers and gain experience. Be sure to find out each volunteer’s goal and match them to the right volunteer opportunity to achieve that goal. Then use the volunteer’s time wisely by ensuring they have a good-sized class of students who show up ready to learn.

Training and Orientation

Some of your volunteers will have previous teaching experience, but for most people this will be their first time helping someone improve their digital skills. To ensure that the volunteer is prepared to work with the learner, have them understand these 10 principles:

1. The learner is in control.
2. Be patient with the learner.
3. Get to know the learner.
4. Do not assume knowledge.
5. Admit your own limits.
7. Be selective and focused.
8. Be flexible and creative.
10. Be open to new experiences.

Be sure to give the volunteer a tour of your facilities, an opportunity to shadow an existing staff member or volunteer, and introduce them to key staff members they will see regularly. This will help them feel welcome and prepared for their first day.

Learner Feedback
You may not see the volunteer in action, so it will be critical to build in other ways of capturing feedback. Check in with the learners to solicit feedback on the volunteer. If they identify areas for improvement, provide the volunteer with additional training or pair them with another volunteer who has more experience. If the volunteer still isn’t performing after a few interventions, it may be time to assign them a different role or let them go.

Liability
Most volunteers have good intentions, but something may happen that requires legal intervention, which is a sure way to derail a program and potentially put the entire organization at risk. A few steps to take to protect your organization include:
1. Have the volunteer sign a release of liability
2. Make sure you have general liability insurance for the locations where volunteers are placed
3. Consider getting Directors & Officers (D&O) insurance to protect the staff and board
4. Conduct background checks

Organizing Substitutes
Life happens, and volunteers may not be able to keep their volunteer commitment. In order to have uninterrupted service for your learners, develop a pool of volunteers with flexible schedules who can serve as substitutes.

Ongoing Support
Volunteers may be scheduled at times and locations where you won’t see them very often, if at all.

You may consider asking volunteers to submit their time weekly (using an online survey tool) and share any issues they’re facing. This way you know they attended their shift and can address any problems immediately. If a new program need pops up, you can provide the additional training at a monthly meeting, which also serves as a way for volunteers to meet each other and share ideas. To keep volunteers informed you could create online training video, schedule a webinar for volunteers to attend, set up an online forum for volunteers to share ideas and meet each other and/or publish a monthly newsletter with links to resources.

Volunteer Recognition
With all the time spent on recruiting and training volunteers, it’s in your best interest and that of your learner to keep the volunteers around as long as possible. Here are some ways to recognize your volunteers in order to increase your retention:
1. Consider sending regular communication with success stories and updates on meeting larger goals to let them know their time is making a difference in the community and contributing to the organization’s larger mission.
2. Show your appreciation by having an annual awards event or highlighting volunteers in a monthly newsletter or on social media.
3. If possible, give your regular volunteers small tokens of appreciation such as gift cards or handwritten thank you notes.