

Libraries Stand Ready as Digital Inclusion Comes of Age

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ABSTRACT

With many small and rural communities and a high percentage of low-income and older residents, Mainers face a variety of barriers to digital inclusion. By sharing stories from this state, we hope to help decision-makers and community leaders in Maine, as well as those across the United States, to gain a deeper understanding of the ways that libraries are embedded in connectivity concerns. Given the depth and breadth of their engagement with digital inclusion work since its inception, libraries stand ready to help the nation adapt to the latest requirements of our digital society—one in which the stakes of being unconnected are increasingly high.

LIBRARIES: KEY PLAYERS IN DIGITAL INCLUSION

Over the past several decades, we have seen a profound transformation in society as computers, the internet, and digital technologies have become an integral part of how we live and work. This technological leap has required—and continues to require—an unprecedented level of adaptation among people of all ages to learn to use new devices and technologies, as well as to navigate both new opportunities and challenges. Since the beginning of the digital age, policymakers have recognized that universal access to computing devices and the internet poses challenges (Bohlin et al. 2022). Additionally, it has become clear that as people have adopted these new technologies, certain demographic groups—including those with lower levels of education, older Americans, and rural residents—have trailed behind (Seidemann and Barboza 2021). Over time, the policy discussion has shifted from providing the public with access to digital technologies to recognizing the importance of ensuring digital inclusion. Achieving digital inclusion means that all community members, including the most disadvantaged, have equitable and affordable access to devices and high-speed internet, and have the skills and support needed to take advantage of the economic, educational, and social opportunities that these technologies afford.¹

America's libraries have served as a cornerstone in this technological transition, and in digital inclusion work, by providing the public with access to devices, the internet, and a wide range of opportunities for building digital skills. These services range from offering public-access computers and Wi-Fi at library locations in virtually every community, to providing hotspots and laptops for loan, to offering one-on-one assistance to help people complete digital tasks, to helping jobseekers, workers,

and small businesses improve their digital competencies. Libraries are also deeply experienced partners—working together with local governments and organizations to aid their communities on a day-to-day basis, as well as to respond to challenges including economic downturns, natural disasters, and public health emergencies. Most recently, during the COVID-19 pandemic when the nation abruptly needed to adapt to remote work and schooling, libraries mobilized to keep their communities online. They did so by expanding Wi-Fi networks beyond library walls, bringing library vehicles equipped with Wi-Fi and other services to key locations, distributing hotspots, helping stakeholders better understand local connectivity needs, and helping residents connect at home with the assistance of emergency programs (Bryne and Visser 2022).

While the themes we explore and the recommendations we make in this article are applicable across the country, we draw primarily on examples from digital inclusion work and the role of libraries in the state of Maine. With many small and rural communities, rugged terrain, and a high percentage of low-income and older residents, Mainers face a variety of barriers to digital inclusion, including a challenging environment for digital infrastructure build-out, affordability concerns, and a need for digital skills support (MCA n.d.). By sharing stories from this state, we hope to help decision-makers and community leaders in Maine, as well as those across the United

MAINE'S DIGITAL EQUITY PLAN, PHASE I

In 2025–2026, Maine plans to use \$5.7 million in Digital Equity Act funds to support 50,000 Maine people with digital skills training, access to affordable devices and technical support, and internet safety education. The state plans to subgrant nearly all (86 percent) of the grant funds to partners, including libraries, with the capacity to implement these programs. The subgrants will fund eight to twelve partner programs in the range of \$250K to \$750K.

As part of this work, the state aims to generate 25,000 donated devices to refurbish and distribute to those who need them. The state will also specifically support the covered populations named in the act and work closely with a range of stakeholders through the Digital Equity Alliance (formerly MCA's Digital Equity Taskforce) and other working groups, as well as through annual statewide digital equity workshops.

States, to gain a deeper understanding of the ways that libraries are embedded in connectivity concerns. Given the depth and breadth of their engagement with digital inclusion work since its inception, libraries stand ready to help the nation adapt to the latest requirements of our digital society—one in which the stakes of being unconnected are increasingly high.

DIGITAL EQUITY ACT

As a result of the pandemic and the forced migration to a highly virtual society (NGA 2022), digital inclusion has gained broader recognition as a public policy priority. One outcome of this is the passage of the Digital Equity Act in the Infrastructure Investment and Jobs Act of 2021. This act provides \$2.75 billion in funding to ensure individuals have the skills, technology, and broadband capacity to thrive online, and it has opened a policy window that communities across the United States can use to increase digital inclusion. Libraries are prepared to assist with this nationwide push, have been actively engaged in the planning process, and can share their decades of connectivity experience to help ensure success.

Funding is being made available through three programs over the course of five years (2022–2027) administered by the National Telecommunications and Information

Administration (NTIA): state planning grants (\$60 million), state capacity grants (\$1.44 billion), and a competitive grant program (\$1.25 billion). During the state planning grant phase (2023), libraries across the country reached out to state and local decision-makers to encourage them to include libraries and library resources in state digital equity plans. The American Library Association (ALA) provided guidance on these conversations and on contextualizing library digital inclusion work within state and local connectivity ecosystems (ALA 2024). In several states, including in Arizona, Minnesota, and Maine, the state broadband office worked closely with the state library to develop a digital equity plan. These collaborations mean that these state libraries are particularly well positioned to plan initiatives and prepare resources to distribute to public libraries across the state. Overall, about one in five public libraries cite current and active involvement in local, state, or regional digital equity and inclusion coalitions, and 14 percent of public libraries report involvement in their state's digital equity planning (PLA 2024).

The digital equity plans developed by each state are intended to identify the barriers to achieving digital equity faced by covered populations including people aged 60 or older, veterans, incarcerated individuals, persons with disabilities, members of racial or ethnic minority groups, rural residents, individuals with a language barrier including English language learners or those who have low literacy levels, and people with low incomes. Libraries already work extensively with these populations and address their connectivity needs, both directly at the library and in cooperation with community organizations, making them a natural partner for the Digital Equity Act work. Notably, the vast majority (89 percent) of Maine residents fall into one or more of the covered population categories, indicating that they are among those in the United States most likely to be impacted by the digital divide (MCA n.d.).

With the state planning grants phase completed, state and local officials should now look toward libraries for the upcoming state capacity grant program, which will fund plan implementation. After receiving capacity grants beginning in mid-2024, each state will redistribute funding through various channels to relevant organizations including libraries.

While there are similar themes present across most state digital equity plans, there are also differences in terms of the key players involved, the amount of funds each state can expect to receive from the Digital Equity Act, and the planned initiatives themselves. In Maine, the

state's response to the Digital Equity Act funding streams is being coordinated by the Maine Connectivity Authority (MCA).² The MCA submitted the state's Digital Equity Plan in September 2023, and it was approved in February 2024 (MCA 2024). The MCA subsequently submitted its application for the capacity grant program in May 2024. The MCA anticipates that Maine will receive between \$10 and \$12 million in funding from this program, which will be distributed through three funding rounds. Available funding for 2024-2025 will be just under \$6 million. Maine's Digital Equity Plan acknowledges that the amount of funding the state will receive from NTIA is insufficient to meet all its goals, and Maine needs to identify additional funding sources to be able to fully implement the plan. Among other things, it will explore strategies to maximize the opportunity provided by the competitive grant program.

As mentioned earlier, the MCA has collaborated with the Maine State Library (MSL) since the early stages of its planning activity. MSL took the initiative to provide information to the MCA about Maine's library ecosystem, focusing on existing digital inclusion work. The state library also sought to understand the initial priorities and objectives of the state to see where library priorities might overlap with or support those of the MCA. In addition, MSL represented Maine's public libraries on the Digital Equity Taskforce, a statewide coalition of over 40 partners that helped guide the development of the digital equity plan. MSL coordinated outreach to local libraries throughout the planning stage to inform the plan as to what types of digital inclusion programs and services libraries in Maine already provide and to assist with outreach and data gathering that resulted in MCA's asset map. The state library also broadened understanding of how partners could enhance services through libraries. To ensure local libraries are able to contribute to the success of Maine's digital equity plan, MSL raised awareness of capacity gaps, challenges that limit what libraries can offer, and strategies to address them.

Following the approval of Maine's digital equity plan by the NTIA, the state's Digital Equity Taskforce became the Maine Digital Equity Alliance. The alliance will build on the initial work of the taskforce to implement Maine's digital equity plan through 2026 (see sidebar 1), and libraries will retain a central role in its management. The director of library development at MSL will serve as a cochair of the alliance along with the executive director of the Maine-based National Digital Equity Center for the first two years. Among the efforts of other community

MAINE'S 257 PUBLIC LIBRARIES ARE DIGITAL EQUITY ASSETS

Maine's 257 public libraries are critical digital inclusion infrastructure that can be leveraged as Maine begins implementation of its Digital Equity Plan.

- **Internet access:** Most of Maine's public libraries have a 1-gigabit synchronous internet connection through the Maine School and Library Network. Most libraries provide 24/7 Wi-Fi access, often extending reach beyond the building proximity.
- **Affordable devices:** All Maine libraries have public computers. Many also provide laptops that can be used throughout the library. Maine libraries are also experimenting with loaning tablets or laptops along with Wi-Fi hotspots to augment access at home.
- **Digital skills and technical support:** People head to local libraries in Maine for one-on-one help with digital skills as well as for classes hosted at the library. Library staff regularly help people set up email accounts, navigate government websites, apply for jobs, learn about online safety and security, and troubleshoot device issues.

anchor institutions, Maine's 257 public libraries (see sidebar 2) will play an important role in rolling out the plan. The alliance will work to ensure that implemented programs and activities address identified needs of the covered populations and that the initiatives launched through the digital equity plan achieve sustainable outcomes.

The third portion of the Digital Equity Act—the competitive grant program—was launched in late July 2024 with the release of a Notice of Funding Opportunity.³ Entities are eligible to apply directly for grants to support digital equity initiatives such as digital skills training programs, free or low-cost equipment for covered populations, workforce development programs, or public-access computing centers (ALA 2024). The competitive grant program targets large-scale national projects funded between \$5 and \$12 million.

Together, these three Digital Equity Act grant programs, alongside the NTIA's BEAD program,⁴ provide a historic investment in digital equity and broadband. This policy window of targeted federal funding is a unique opportunity for the nation to advance the goals of closing the

DIGITAL EQUITY PLAN OBJECTIVES

Each state's digital equity plan includes measurable objectives to promote

1. availability and affordability of access to broadband technology;
2. online accessibility and inclusivity of public resources and services;
3. digital literacy;
4. awareness of online privacy and cybersecurity; and
5. availability and affordability of consumer devices and technical support for those devices.¹⁴

Libraries will help their communities meet each of these five objectives by strengthening their existing digital inclusion programs, as well as through new initiatives and partnerships ignited through state plans.

digital divide and achieving true digital inclusion. With the participation of every state and stakeholder across the country, now is the moment to build a connected future for everyone. Libraries are ready to participate in this endeavor as partners, leaders, teachers, and access points, and are already doing so in several ways, which we elaborate in the next section.

DIGITAL INCLUSION IN LIBRARIES

To understand how libraries can contribute to the goals of the Digital Equity Act in Maine and other states, it is important to know how libraries foster digital inclusion today. Library contributions range from providing access to technology, to helping people build digital skills and digital literacy, to serving as valued community partners. While public libraries are most often central to discussions of digital inclusion, other types of libraries, including school and academic libraries, also contribute. School libraries provide internet access, as well as digital literacy and skills training to K–12 students and teachers, while academic libraries play a similar role for community college, college, and university students and staff. Skills include teaching students to protect themselves online and to critically assess information they find on the internet. Public, school, and academic libraries may all play a role in ensuring that the people they serve have access to the internet at home, by loaning laptops and

hotspots. Here we summarize the most important ways that public libraries, especially small and rural ones, play a role in digital inclusion—all of which can be leveraged to support Digital Equity Act initiatives.

Libraries Facilitate Access

Availability and affordability of broadband

For the past 20 years, essentially all 17,000+ public libraries (99 percent) in the United States have provided the public with access to the internet, both via wired connections to public-access computers and via library Wi-Fi (Wong 2022). This public access has helped millions of Americans get online for the first time and to complete essential tasks including job searches, homework, and applications for veteran and healthcare benefits. The federal universal service program for schools and libraries (E-rate), established in 1996, has been critical to helping libraries maintain and improve their broadband connections (ALA 2018). In Maine, the Maine School and Library Network (MSLN), with the support of E-rate, provides nearly all libraries with a gigabit connection to the internet.⁵

Libraries have a particularly important role to play in rural areas when it comes to ensuring that communities have access to high-quality broadband. While rural broadband infrastructure has improved over the last several decades, it still lags suburban and urban infrastructure. Rural residents, including many tribal communities, may still encounter slow speeds, a lack of choice of broadband providers, high prices, or a lack of service altogether. In Maine, broadband service availability and quality varies geographically. For example, just 72 percent of people in Waldo County have access to 25Mbps internet service, yet 98.8 percent of residents in York County have access to 1Gbps service.⁶ While efforts are underway to improve Maine's broadband infrastructure, the E-rate program helps ensure that even when home broadband service is inadequate or out of range financially, community members can access a high-quality internet connection at the local library. Libraries report that patrons in areas with poor internet service complete some online tasks at home but visit the library for bandwidth-intensive activities like video-conferencing or uploading and downloading large files. According to an unpublished memo to state broadband offices, nearly half of states (at least 22) have indicated that they are planning to increase or promote public Wi-Fi options as part of their Digital Equity Act work, which includes providing expanded access at libraries,

schools, affordable housing, and public access points and charging stations.⁷

Availability and affordability of devices and technical support

In addition to offering reliable broadband, many libraries now also provide consumer devices for checkout, which helps facilitate home broadband access for new users, rural residents, and low-income community members. The 2023 Public Library Technology Survey reports that public libraries circulate a variety of off-site technologies including hotspots, laptops, tablets, E-readers, recreational technology, early learning devices, and streaming devices to patrons (PLA 2024). While library technology-lending programs have existed for more than a decade (Strover et al. 2020), these programs gained steam during the COVID-19 pandemic, with approximately 47 percent of library survey respondents reporting circulating hotspots in 2023, compared to 33 percent in 2020. The percentage of libraries that circulate laptops for off-site use increased during that period as well from nearly 17 percent in 2020 to approximately 25 percent in 2023 (PLA 2024). The new E-rate hotspot lending program will help even more libraries to sustainably and reliably circulate hotspots (FCC 2024). Relatedly, many state digital equity plans include device distribution programs to help connect disconnected households and build familiarity and adoption in communities that currently lack access, digital skills, or both. Libraries will be integral distribution partners, helping to promote the opportunity and provide supportive environments for using these new devices, creating needed accounts, and receiving training. Libraries may be used as distribution centers, enrollment centers, and more for programs that aim to reach under-connected communities.

Device-lending programs already exist at some Maine libraries, including programs that serve priority populations for the Digital Equity Act. The McArthur Public Library in Biddeford, for one, offers hotspots for loan to English language learners at Biddeford Adult Education, who are asylum seekers or refugees. The hotspots are intended to benefit the students' whole family, providing online access for family members of all ages. This project, as well as a similar planned initiative at the Goodall Library in Sanford, Maine, is supported by the Southern Maine Planning and Development Commission (SMPDC). Somewhat differently, in northern Maine, the Caribou Public Library loans hotspots to people who do not have

home internet access, as well as those who have a disability or are homebound. The library uses its bookmobile to deliver and pick up the hotspot if the patron cannot come to the library. The program focuses on supporting remote workers as well as on helping people access certification programs and skills building to move up or over to better careers (Lizotte 2023).

Recognizing that affordability is key for inclusion and access, libraries regularly partner with local and federal government agencies to build awareness about available affordable broadband options and related programs. During the Affordable Connectivity Program,⁸ an immensely popular Federal Communications Commission (FCC) program that enrolled more than 23 million households in low-cost broadband, libraries were critical players in promotion, enrollment, and education. Library recognition of the financial barriers to home broadband adoption comes from direct experience with patrons. One study points to the fact that even when broadband is available in communities (of any geographic type), people may not be able to afford it and use library hotspots to stay connected during financially tight times. For example, “librarians in Washington County, Maine...reported a spike in demand for loaned wireless devices during the winter months, coinciding with the rise in heating costs as individuals and families are forced to prioritize warmth over broadband at home” (Strover et al. 2017).

Accessibility and inclusivity of public resources and services

When information about government services began to move online, libraries became the de facto community help desk for individuals needing to access such services. Many people struggle to use these online resources because of a lack of internet service at home or accessibility of the sites, forms, or processes, especially when viewed on a phone or not provided in the user's first language. A survey conducted to inform Maine's digital equity plan found that 92 percent of respondents reported using the internet to access government resources, but most found it difficult (MCA n.d.).

Addressing this issue involves improving the usability of online public services, providing direct assistance to help people navigate these services to address immediate needs, and helping people develop the skills and confidence to navigate them on their own over the longer term. Libraries can contribute to all three of these areas.

Libraries often have a clear sense of which websites community members need to access but find difficult to use and can share this information with public agencies to improve website usability. This knowledge comes from libraries' long track record of helping community members to use the internet to enroll in government programs, as well as to accomplish things such as filing taxes, getting health care, receiving benefits, accessing aid and information during natural disasters (Laurian et al. 2024), and signing up for affordable home broadband service. The Naples Public Library, for one, frequently helps community members to create unemployment accounts on the Maine Department of Labor website. Similarly, the Boothbay Harbor Memorial Library provided intensive one-to-one support for patrons applying for government benefits during the COVID-19 pandemic and frequently helps patrons with scanning and sending documents related to green card and work visa applications. Libraries not only help patrons navigate online public resources, but also refer community members to other relevant online resources and vital community information from partners and officials that the patrons may not have otherwise known about.

While community members come to the library for the technology, library staff routinely aid patrons with official matters and access to government services in other ways. At many Maine libraries, librarians walk residents through securely printing essential documents on a daily basis. This list includes estate planning documents, real estate transactions, insurance paperwork, and communications to and from medical providers. A staff person from Naples Public Library comments, "often times these documents come during stressful times in their lives, while an expiration or time constraint looms. Technology is ever changing; nothing ever prints the way it did the previous time...and people feel the pressure and the stress. We pride ourselves in streamlining these exchanges for patrons."

The Pittsfield Public Library in central Maine also helps people access emerging services such as telehealth. Telehealth is critical because it can help bring more consistent health care to rural and remote areas. Library support is especially important for telehealth users who have limited computer skills or lack the necessary equipment or a high-speed home broadband connection, such as older users who may be familiar with email but not with audio-video conferencing applications. Through the Maine State Library's Libraries Health Connect Program several other libraries provide a private room with the

appropriate technology to allow patrons to access telehealth services such as "wellness visits, requesting or renewing prescriptions for medications, follow-up appointments, consultations with specialists, nutritional counseling, mental health counseling, and other non-urgent conditions."⁹

Libraries Build Digital Skills

Digital literacy

Libraries not only provide people in the United States with access to digital technologies, but also help them learn both essential and advanced digital skills. As of 2023, 95 percent of the country's public libraries offered formal or informal digital literacy programming, and more than a third (37 percent) had dedicated digital literacy and technology programs and training staff. Nearly a third (30 percent) of libraries offered a digital navigator program, a rising trend, and more than one in five libraries provided classes or informal help related to computer programming, coding, robotics, and 3D printing (PLA 2024). Digital skills building in libraries happens through a variety of learning formats, including informal one-on-one help, individual appointments, drop-in classes, workshops, and ongoing courses. The training libraries offer ranges from helping people gain basic skills (using computers, using email, using the internet, online privacy and security, social media) to teaching applied digital skills (job seeking, technical skill certificates, office software, small business applications, creative work, coding). In Maine, about 60 libraries currently partner with the National Digital Equity Center (NDEC), a Maine-based nonprofit, to offer a variety of digital skills classes on Facebook, Gmail, and WordPress.¹⁰ Maine's digital equity plan will add capacity to NDEC to provide more digital navigators (people who help individuals access the internet, devices, and build skills), including ones in libraries.

The digital-skills-building programs that libraries offer can be especially helpful to rural communities, which may lack access to the same breadth of training programs found in more densely populated areas. Additionally, strong digital skills can help rural residents secure remote work and grow their own businesses, helping to boost the local tax base and keeping talented workers in the community. The Unity Public Library, for example, offers Udemy Business, an online AI-enabled learning platform, classes to anyone with a library card. The library pays for the subscription with local economic development funds so it can

provide its small community with access to thousands of courses via the platform. In a larger-scale project, the Maine State Library is joining with the Department of Economic and Community Development to support remote workers through the Remote Work through Libraries Initiative. Over the next three years, nearly 40 libraries will establish or expand services for Maine's remote workforce by providing access to business technology, creating private meeting space, and building dedicated coworking space at libraries. Some of the library projects will focus on specific populations, such as older adults, new Mainers, and home business owners.¹¹ The focus during the second year of the project will be to connect with business support organizations such as chambers of commerce, Maine Small Business Development Centers, and organizations driving economic development in the state such as the Maine Tourism Foundation and the Maine Development Foundation as well as aligned organizations such as the Maine Association of Realtors. Building partnerships with these organizations serves the dual purpose of raising awareness of library services for remote workers and entrepreneurs or small business owners and opening the door to more resources for libraries to augment services.

Libraries also help people to secure new work and are often an integral part of the job search due to the technical assistance they provide. At the Bangor Public Library, one librarian reports, "I've also worked with folks on filling out job applications, writing cover letters, and learning Excel skills so they could be qualified for jobs they were interested in. It's always gratifying when a patron comes back and says, 'I got the job thanks to your help with my resume!'"

Similarly, a recent study on the role of public libraries in workforce and small business development found that US libraries provide both standard and specialize technology services that benefit workers and jobseekers. Among other things, the report notes that libraries are critical partners of workforce development agencies, and that "these agencies often refer individuals who seek these [basic digital competency]

PARTNERING WITH BUSINESS ORGANIZATIONS

The American Library Association's Libraries Build Business initiative partnered with 13 public libraries from across the country to develop promising library-led small business and entrepreneurship support models with an emphasis on under-represented small business owners.¹⁵ The goal was to demonstrate that any library, no matter its size or budget, can play a role in the local small business ecosystem and support thriving local communities. Topsham Public Library, a Maine library with a service area of less than 9,000, was among the 13 libraries selected. The library facilitated one-to-one business support meetings with Maine CareerCenters and provide assistance setting up online meetings for remote workers and small business owners. This model proved scalable across Maine, and more than 30 libraries have had or currently have a similar CareerCenter partnership. Topsham Public Library provided resources and input from their grant experience to build this promising practice across other rural locales. Libraries partnered with the Maine CareerCenters, local SCORE chapters or chambers of commerce, and local economic development organizations. Partnerships like this help libraries sustain programming. As Maine's heritage industries shift or decline and new technology-based jobs emerge, these library connection points to digital inclusion workforce and small business activities are crucial.

Finally, while many library technology-skills-building programs are offered to the general public, some are tailored to specific demographic groups. The Rangeley Public Library hosted computer literacy classes for older adults, which taught a variety of practical skills. One older patron said the classes "gave me confidence to try new things and not worry that I was going to mess up my computer." Among other things, she was very excited after a spreadsheets class to be able to complete her Christmas card list on Excel and print her labels rather than writing them by hand. While this may seem like a small contribution, it is representative of the assistance that many thousands of Americans receive at libraries that allows them to apply digital skills to concrete tasks in their daily lives.

services to the library for foundational support in understanding how to use a computer, establish an email address, and use basic online platforms and standard software applications, such as Microsoft Office" (Mt. Auburn Associates 2022: 14). Libraries also assist small business owners. For example, a small business owner dropped in at Fryeburg Public Library's tech help hours to get help

LIBRARIES IN DIGITAL INCLUSION EFFORTS

Libraries can support local digital inclusion efforts by

- providing physical locations for stakeholders to meet with each other and the community;
- hosting digital inclusion services provided by different stakeholders;
- promoting external services, organizations, and government agencies that offer digital inclusion resources;
- acting as a trusted gateway for underserved populations to access digital inclusion services at the library or elsewhere; and
- informing community leaders and other stakeholders of local connectivity issues, gaps, and needs.

choosing the type of computer would work best for him and his business. The librarian demonstrated the ins and outs of a library Chromebook. The business owner felt it was a good fit, later purchased a device, and came back to the library periodically for help accomplishing digital tasks. Other libraries offer advanced small business help, by providing things such as workshops on how to make one's business stand out online or social-media-marketing classes such as at the Bangor Public Library, where entrepreneurs have received one-on-one assistance on how to use social media to promote their businesses. The library has also helped would-be small business owners organize emails and use spreadsheets to better track information. Simple activities like connecting patrons to Wi-Fi, setting up online accounts, and teaching digital navigation skills are vital for aspiring and existing small business owners.

Online privacy and cybersecurity

As part of core digital literacy instruction, libraries support information literacy, media literacy, and online safety and privacy. This training includes protecting passwords, logging out of accounts on public or shared devices, and avoiding scams or malware. About one-third (35 percent) of libraries currently offer training and support related to online privacy and safety (PLA 2024) via both formal classes and one-on-one help. In Maine, for example, both the Liberty Library and the Boothbay Harbor Memorial Library offer introductory level cybersecurity classes. Furthermore, libraries are in

conversation with the FCC and state and local partners about how to protect vulnerable patron data and public networks as well as libraries' need for advanced cybersecurity tools and equipment.

WORKING WITH LOCAL AND STATE LIBRARIES

Toward the shared goal of ensuring the Digital Equity Act programs are successful, stakeholders and policymakers can use libraries in Maine and beyond as convenors, connectors, hubs, and trusted partners. Libraries are especially well positioned to partner with policymakers to address community connectivity challenges. This section details ways that stakeholders can work with libraries, while highlighting the support libraries need to best provide these services.

Convene and Connect

Policymakers and community organizations working towards digital inclusion should consider hosting local stakeholder meetings and networking opportunities at the library. Libraries are typically central, convenient, and staffed locations that can provide meeting space. Getting digital inclusion partners together at the library and drawing in available library staff offers a variety of benefits. It can connect community leaders to residents to help them better understand connectivity needs and provide visibility for officials that generates a sense of rapport and facilitates community connection and information sharing. In Maine, during the planning phase for the digital equity plan, the Maine Connectivity Authority held community forums in libraries to reach covered populations and get input from the general community around the NTIA's five priority areas. Formal and informal networking and dialogues provide opportunities for stakeholders to engage and strengthen the social and civic fabric of the area.

Colocating services at the library is another opportunity to convene and connect with local residents. Broadband partner groups offering one-to-one support, events and programs, or other digital inclusion services may consider providing these services at the library. Libraries may be able to provide a dedicated space as well as help signing individuals up for appointments or programs. Colocating services reaches individuals who know about and use the library, but who may not know how to access specialized services, local government agencies, internet service providers, and other broadband stakeholders.

LIBRARIES IN MAINE

In Maine, 70 percent of libraries serve small and rural communities. Maine's public libraries have an average of 2.85 full-time employees; 71 percent have two or fewer staff, 46 percent have only one staff person, and 19 Maine libraries are entirely volunteer led. Maine libraries are open on average 28 hours per week. To continue providing and expanding services, Maine libraries need secure, reliable funding and support.

Maine has 257 public libraries, and 98 percent of them receive municipal funds to support library operations. Municipal funding makes up 71 percent of the total operating revenue. Statewide library funding breaks down as follows: local revenue (\$43,981,824), state revenue (\$381,103), federal revenue (\$336,008), other revenue including grants, fees, donations, interest and gifts (\$16,959,005). Total operating revenue is \$61,657,94.¹⁶

Colocation of digital inclusion services can also reduce transportation barriers.

Cross-Promotion and Outreach

Library workers are knowledgeable about available community resources and offer patrons referrals to other agencies or programs. They likely have displays or tables where partner organizations can provide information, flyers, resources, and contact information. Library staff can provide information about these programs and resources to community members who visit the library, but they can also help reach those who do not frequent the library. Libraries engage in a variety of outreach channels, such as radio ads or ads on the sides of buses; the library website can also link to digital-inclusion-related community events and other supports and opportunities. Regular outreach to library staff is key to ensure that the library is able to provide this information to patrons. Include library staff on email blasts and newsletter releases and follow up directly to identify contacts and create channels for dialogue.

Libraries are essential partners for outreach with underrepresented populations, including the covered populations defined in the Digital Equity Act. This fact is especially true in small and rural communities where there are often limited public service organizations. Building upon library values of privacy and access, library staff build trusted relationships with patrons. For these

reasons, as well as the library's centrality in most communities, many individuals feel more comfortable visiting a library, attending library programs, or asking for information from a library worker than from a commercial service provider or government agency. Libraries also know and understand the demographics of their communities. Libraries conduct formal and informal needs assessments and solicit feedback in the community, making it possible to conduct more effective, targeted outreach. Further, covered populations may come to the library to pick up books for their children and may learn about digital inclusion programs and services while there. This space for casual information gathering is highly valuable, and libraries are one of the few community locations in which this kind of information transfer consistently occurs.

TO BOOST DIGITAL INCLUSION, LIBRARIES NEED SUPPORT

While libraries throughout the United States—including local libraries, as well as state and national networks—are important existing infrastructure that can be mobilized for digital inclusion efforts, libraries themselves need support. Here we outline several ways in which stakeholders and policymakers can help ensure that public libraries fully serve their communities.

Consider Capacity

Libraries are a critical component in digital inclusion networks in Maine and elsewhere simply by being open to all and existing in communities where there may be few other resources. Yet, all libraries, and especially small and rural ones, face capacity challenges. That is, they may have few resources to grow or even maintain their services. Typical small and rural libraries across the country have just one full-time and three part-time staff members and may be open a limited number of hours (PLA 2024). The two main challenges libraries face when providing digital literacy training and services are limited staff capacity (54 percent) and insufficient funding or resources (39 percent). Not having enough staff or staff time limits the extent to which libraries can train and assist patrons. And limited funds can make it difficult for a library to “invest in and sustain digital literacy programs, to purchase technology, and to hire qualified staff” (PLA 2024: 10). Despite these significant challenges, small and rural libraries daily offer digital navigation and tech support, access to devices and broadband, and referrals to other training and help.

WHAT LIBRARIES NEED TO SUPPORT DIGITAL INCLUSION

To fully support digital inclusion, small and rural libraries need

- expert staff
- frequent and reliable opening hours
- new materials, resources, and basic equipment, such as computers, hotspots, printers, and software
- emerging technologies, such as 3D printers and advanced software
- ready-made templates and tools for teaching digital skills
- networking opportunities with other digital inclusion stakeholders
- collaboration with partners who provide digital skills and technology training
- support from professional library networks
- local champions

To provide reliable opening hours, expert staff, and resources and technology, libraries need sustainable funding sources.

All libraries must balance the administrative needs of running the library with the front-of-house necessities of serving the public. This is particularly true for small libraries, which may rely on volunteers and partners to assist with essential tasks. Partnerships with local organizations are often critical for these libraries to maintain the services discussed earlier. And, while volunteers are often integral to a library, professionally trained library staff are essential for running programs, providing expert guidance, and staying current with local, state, and national resources and trends. Libraries are an important resource for rural communities, and even with limited programs and services, the existence of a public library is something community members rely on. When working with libraries for digital inclusion efforts, stakeholders need to consider library capacity and help libraries extend their capacity by securing additional funding and fostering relationships with prospective partners and other supports.

Act as a Local Champion

Libraries are dynamic and responsive in their service model, evolving to meet community needs, which has led them to develop new services as technology changes. Yet,

many people have outdated ideas about what libraries do. Perhaps they think just about children's programming or reference books and not about the many ways that libraries assist people to interface with the digital age, to achieve work and personal goals, and to access essential online services.

While librarians can do outreach on their own, they need other champions to invite them to meetings and events, introduce them to partners, and consider them as key stakeholders in the wellbeing of a thriving community. In terms of digital equity, libraries are natural leaders when it comes to broadband, digital skills, and technology adoption, but they often need the support of advocates to find a seat at the table. Advocating for the inclusion of small and rural libraries in dialogues about the local digital equity landscape is especially important. These libraries often have limited capacity for networking yet are a vital link to the online world for community members facing digital barriers. Bringing them onboard in Digital Equity Act efforts benefits everyone.

Support Ready-Made Templates, Tools, and Learning Opportunities

Librarians are experts in finding information and resources, but they may not have the time to assist all people in depth or have expertise on all given technology topics. Especially for small and rural libraries, providing a full suite of digital inclusion services can be challenging. Libraries need ready-made templates, tools, and other resources. Materials such as the free online digital skills courses offered by the Public Library Association¹² can help small libraries build confidence in offering programs on a wider range of technology topics. To reach specific audiences, for example, the business community, the ALA's Libraries Build Business initiative has adaptable tools for libraries of any size or budget to build capacity and relationships with potential partners, funders, and champions.¹³ Funding to improve and expand resources like will benefit libraries in all 50 states.

Lack of staff expertise can hinder libraries' ability to offer digital inclusion programs. Additionally, "rapid advancements in areas like AI can make it challenging to keep up and provide up-to-date programs and assistance" (PLA 2024: 10). Therefore, peer-to-peer learning, such as through the state or national library associations, is an important way for library workers to build skills, stay current, and collaboratively refine digital inclusion best practices. Additionally, many workers in small and rural libraries do not hold a master's degree in library and

information science, the standard for the library profession. For these staff, on-the-job training and the opportunity to exchange experiences with other professionals who support digital inclusion is especially important. Therefore, decision-makers and digital equity stakeholders should support these state and national library networks as well as local library access to them.

Ensure reliable and sustainable funding

While exact funding scenarios vary by community, public libraries are primarily funded locally via city and county taxes (McDade 2013). Local funds cover essentials such as staff salaries, books and other materials, office supplies, facilities maintenance, and utilities. Special revenues (including grants and donations, endowments, and fund drives) and state funds cover a smaller portion of the public library budget and may allow libraries to offer additional programming, including digital skills classes, laptop loans, or building renovations. Federal funds contribute a minor yet critical amount to most library budgets, providing funds for high-speed broadband connections (via E-rate) as well as funds for special projects, emergencies, and, less often, renovations. While nationally many libraries report budget increases in the past year (Peet 2024), funding levels are generally precarious as they depend on a varying tax base, continued community support, and the overall health of the economy (Cunningham 2023).

To support their communities and digital inclusion, libraries need access to secure and reliable local, state, and federal funding. Decision-makers at all levels of government should ensure library funding keeps pace with the increasing costs of libraries services, programs, and ongoing facility maintenance. Regarding state and federal grant programs or initiatives beyond the current Digital Equity Act programs, decision-makers can ensure that libraries are specifically named as eligible entities (such as in state legislation for digital inclusion and education). Unique barriers to accessing funding that libraries face should also be addressed. For example, federal funding typically requires detailed reporting, including the collection of demographic information of people served that often causes issues for libraries, which must adhere to state privacy laws that protect personally identifiable information. These privacy laws can make required measurement and evaluation of programs more challenging. It can also cause concerns related to recordkeeping and tracking usage data long-term. Decision-makers should allow flexible evaluation policies that enable libraries to

demonstrate effectiveness while avoiding conflicts with state privacy requirements. Additionally, especially for national-level programs that target libraries of all sizes, such as the FCC’s E-rate program, libraries need straightforward and accessible application procedures.

CONCLUSION

For decades libraries have helped ensure that people have access to broadband and the digital skills needed to thrive online. Libraries leverage expert staff, community relationships, and technological infrastructure to boost digital equity, literacy, and inclusion nationwide. Libraries are cost-effective and efficient partners with a proven track record of stewarding public funding to meet community needs and achieve policy goals. This expertise should be made part of current initiatives to close the digital divide, including the Digital Equity Act and its related grant programs. In this historic moment of broadband investment, libraries are ready to build upon their longstanding and successful digital inclusion work to ensure equity and digital access for hard-to-reach populations. To fully support communities across Maine and the nation, libraries need reliable and accessible funding and to be considered an integral part of state- and local-level planning. Even the smallest of libraries can contribute, including the thousands that serve rural communities. These libraries will especially benefit from ready-made digital inclusion tools and resources, local partnerships, support from local champions, and access to library networks and professional development opportunities.

NOTES

- 1 <https://www.digitalinclusion.org/definitions/>
- 2 <https://www.maineconnectivity.org/digital-equity>
- 3 <https://www.ntia.gov/federal-register-notice/2024/notice-funding-opportunity-digital-equity-competitive-grant-program>
- 4 <https://broadbandusa.ntia.doc.gov/funding-programs/broadband-equity-access-and-deployment-bead-program>
- 5 From 2022-2024, 597 schools and 229 libraries received \$14,694,112 for broadband connectivity and internal connections in Maine.
- 6 <https://broadbandnow.com/Maine>
- 7 Unpublished memo from the PEW Charitable Trust to state broadband offices, May 2023.
- 8 <https://www.fcc.gov/acp>
- 9 <https://www.maine.gov/msl/news/display.shtml?id=7308648>
- 10 <https://digitalequitycenter.org/classes/>
- 11 <https://www.maine.gov/msl/lib/admin/funding/ARPA.shtml>
- 12 <https://www.digitallearn.org/>
- 13 <https://www.ala.org/advocacy/workforce/grant>

- 14 <https://www.internetforall.gov/program/state-digital-equity-capacity-grant-program>
- 15 <https://www.ala.org/advocacy/workforce/grant>
- 16 FY23 Maine Library Funding

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