Building
Digital
Communities

Getting Started

Contents

What is digital inclusion — and why does it matter?

Digital inclusion is the ability of individuals and groups to access and use information and communication technologies. Digital inclusion encompasses not only access to the Internet but also the availability of hardware and software; relevant content and services; and training for the digital literacy skills required for effective use of information and communication technologies. The cost of digital exclusion is great. Without access, full participation in nearly every aspect of American society — from economic success and educational achievement, to positive health outcomes and civic engagement — is compromised.

This guide is designed to help communities attain the vision of digital inclusion.

What does digital inclusion mean for people in a community?

All people, businesses, and institutions will have access to digital content and technologies that enable them to create and support healthy, prosperous, and cohesive 21st century communities.

Specifically, digital inclusion means that:

- All members understand the benefits of advanced information and communication technologies.
- All members have equitable and affordable access to high-speed Internet-connected devices and online content.
- All members can take advantage of the educational, economic, and social opportunities available through these technologies.

Not all members of a community benefit equally, and some communities have been left out altogether. Recognizing the cost to American competitiveness in a global economy, Congress directed the Federal Communications Commission (FCC) to develop a plan to ensure that every American has "access to broadband capability." Issued in March 2010, the *National Broadband Plan* recommended that the Institute of Museum and Library Services (IMLS) take the lead in supporting libraries and community-based organizations as they improve digital inclusiveness.

This guide was developed with input from over one hundred organizations and individuals with deep knowledge about public access technology and the diverse information needs of communities. It presents a set of overarching principles (and associated goals) and identifies the key characteristics of organizations and communities that foster digital inclusion.

A framework for community-wide planning

Communities across the country are recognizing the pressing need to coordinate, plan for, and implement digital inclusion efforts to ensure that every resident is able to benefit in our increasingly digital society. These efforts include extending broadband infrastructure to rural and other underserved areas, digital literacy, and targeted programs to ensure everyone can complete an online job application, take a distance learning class, or manage his or her healthcare.

The Framework is a resource for community-wide planning to help forward-looking communities achieve digital inclusion for all of their residents. It sets forth a vision of what a modern 21st community looks like when digital inclusion is a priority, presents a set of principles that need to be addressed in order to achieve that vision, and provides specific goals that can serve as benchmarks for making progress against each of the principle areas. The Framework also includes strategies that communities have implemented around the country to serve as examples for others, acknowledging that every community is unique and will identify its own direction.

The digital inclusion framework is akin to a transportation planning tool. In transportation planning, communities need to move people and goods in order to prosper and grow. A comprehensive transportation plan includes not just the roads, but also the sidewalks, bike lanes, public transportation, traffic control, and enforcement. A transportation plan uses community-established goals and incentives to prioritize the implementation of improvements, and to respond to changing needs. Depending on the specific situation of the community (history, geography, financial base, etc.), these priorities are different, but the basic framework behind all of the plans is substantively similar.

So too is it with digital inclusion. Digital inclusion is a requisite for building healthy and prosperous communities across all important sectors—economic and workforce development, education, health care, public safety and emergency services, civic engagement, and social connections. While each community will have different priorities, the fundamental needs are the same:

- high-speed infrastructure to carry Internet traffic and connect households to businesses and community institutions;

- help people learn to navigate technology and provide a safe environment for doing so;

- maintain public options for those who are unable, can't afford, need temporary access, or for whom it doesn't make sense to maintain private access;

- remove barriers to access for people with disabilities or facing other obstacles to access; and

- address the special needs and requirements of key sectors that drive the local economy.

A community must engage all sectors to achieve digital inclusion—this is not just a function of government action, it needs to involve individuals, local and tribal governing bodies, business, the nonprofit community, special interest groups, and other stakeholders. Public libraries, recognizing the role they have played in bridging the digital divide, are uniquely positioned to convene this planning process and begin this essential work, but the initiative can come from anywhere. What is important is that communities recognize digital inclusion as a priority and take steps to achieve it. *Building Digital Communities* is a planning tool to help communities in this effort.

The Framework provides a resource to help communities chart a course toward improving digital inclusiveness — toward expanding the economic and social opportunities provided by digital technology to all its members. The Framework consists of four components:

Vision — Describes a digitally inclusive community as it is experienced by residents

Principles — Statements of intention to focus effort in specific areas

Goals — Specific achievements required to achieve the vision

Strategies — Actions to achieve the goals within a community context

Structure of the Framework

Access Principles

Access principles address the infrastructure a community needs to have in place in order to provide opportunities to benefit from digital life.

- **Availability**: A reliable communications infrastructure is the raw material for innovation, growth, and competitive engagement in today's information-based world.

- **Affordability**: Access to the Internet needs to be affordable for communities and their members to benefit from the expanded opportunities of digital life.

- **Design for Inclusion**: People with disabilities, physical or cognitive differences, and differences in age-related capabilities, language, literacy or culture may face challenges using technology and participating in digital life.

Adoption Principles

Adoption principles look to overcome individual barriers that make use of broadband technology less likely, even when access is available.

- **Public Access**: Public access to technology is necessary for community members who have little or no communication technology available in the home, need assistance to effectively use technology, or to supplement connectivity at home or in schools.

- **Relevance**: Beyond having access to technologies, individuals, businesses, and institutions need to understand the relevance and benefits of using technology to achieve educational, economic, and social goals.

- **Digital Literacy**: Digital literacy skills, including the ability to find, evaluate, and use information to achieve goals, are a necessary pathway to digital inclusion.

- **Consumer Safety**: Consumers — both individual and institutional — need accurate, unbiased information on how to safely navigate the digital world.

Strategic Areas

The thoughtful deployment of broadband technologies in six specific strategic areas can strengthen communities and can improve the lives of their residents.

- **Economic and Workforce Development**: Communities need to develop the knowledge and skills of future workers and entrepreneurs, as well as help the current workforce update its competencies to meet the needs of employers.

- **Education**: Educational institutions should ensure that students have the digital skills to reach their full potential by connecting them to a diverse range of electronic resources.

- **Health Care**: Efficiencies and cost-savings in health care delivery, improvement to patient care, and support for independent living and management of health concerns are all enabled by access to broadband and digital technology.

- **Public Safety and Emergency Services**: Residents and first responders need integrated communications systems for emergency and disaster preparation, response, and recovery.

- **Civic Engagement**: Electronic interaction between community institutions, government agencies, and individuals creates enhanced opportunities for active participation in community affairs.

- **Social Connections**: Individual members of a community should have access to technologies that promote social engagement and the pursuit of independent learning and creative interests.

Getting started on digital inclusion

Every community will determine its own path to becoming digitally inclusive, depending on its unique set of needs and priorities, the structure of its government and institutions, and its styles of leadership and civic engagement.

Nevertheless, most communities will be able to use a common set of steps to identify both their needs and the actions required to address those needs. The steps outlined below are processes drawn from a range of efforts to build better communities.

1. Convene stakeholders

Successful strategies to address important community goals are predicated on broad and sustained stakeholder participation, and the list of institutions important to creating a truly inclusive community can be long and diverse:

- The local city, county, and tribal governments, as well as those in neighboring areas, will be essential players. Elected leaders and senior appointed officials have specific responsibilities for strategic and community planning across a wide range of areas.

- Public agencies, especially public libraries, are essential to the process. Whether they are part of local or district government or independent institutions, public libraries have become the central institutional player in providing public access to digital technologies. Other important public agencies include the public schools (K-12), institutions of higher learning (especially community colleges and adult education programs), museums, economic development agencies, agencies with community centers (such as recreation departments), and public housing departments. In many local governments a central office of technology plays a critical role in digital management issues across the various public agencies and should be actively engaged in the discussion.

- Non-profit community-based organizations can be especially effective in reaching hard-to-serve populations, and vary widely from one community to another. Community-based organizations are often more nimble and experimental than government entities. Likely partners for community-based organizations are non-profits that serve targeted populations within a community — including people who are low-income or homeless, populations with disabilities, or people from specific ethnic cultures. Organizations that provide supportive housing, job training, and childcare can reach residents who need access to digital technologies and that may have otherwise been overlooked. Community foundations can serve as neutral conveners and as sources of initial funding.

- The business community includes many potential partners. Telecommunication companies have an essential role. Major employers in need of trained employees can provide valued support, especially if there is a single, dominant employer within the community. Chambers of Commerce and other business groups often recognize the economic imperatives for digital inclusion. Businesses play an obvious role in the aspects of digital inclusion impacting economic development. Many businesses make a point of incorporating all segments of the community in their civic and social philanthropic activities. Businesses can also provide Internet hotspots for public access.

- Residents, be they individuals or representatives of neighborhood or housing associations, can help ground digital inclusion efforts in the needs that are most relevant to the community. Civic engagement begins with becoming informed on digital inclusion issues, and is followed by engaging with local organizations in order to raise peoples' awareness about the importance of adopting broadband and actively participating in a digital society.

  Residents' participation on committees and task forces help institutions develop a broader perspective of the values of digital inclusion and its effect on the community; institutional and organizational leaders can expand resident participation by conducting surveys, forums, and workshops in the communities where they live and for the people they serve.

Such a diverse set of stakeholders will not inevitably come together. Participatory action will require leadership — a catalyst to initiate the participatory process, engage the broad array of stakeholders, and guide the process to success. Given its experience in digital technologies and its reputation for being non-partisan and welcoming to all, the public library is uniquely positioned to assume this leadership role.

2. Develop a shared community understanding of digital inclusion

In an area as complex as digital inclusion, community stakeholders need to begin with a shared understanding of the needs and the goals.

- What does the term digital literacy mean for the community?
- What digital technologies are currently available, and to whom?
- Where are the gaps? Who is left out and at risk of being left behind?
- What are the most important community goals of digital inclusion: economic development, education, job training, health care, emergency management, social connection?

The answers to these questions will necessarily vary by community. A key component of developing community answers should be a needs assessment that is based on systematic data collection and analysis. A shared vision should emerge from the joint learning process – a vision that describes where the community wants to be in a technology-driven world and what it needs to do to get there.

3. Create a community action plan

Grounded in the shared vision, communities need to develop an actionable plan that outlines specific goals, measures of success, timelines, and assignments of responsibility. Some communities will make large comprehensive plans; others will create more narrowly targeted plans that utilize their limited resources as effectively as possible. Either approach can work.

4. Implement the plan

Drawing on government appropriations, business contributions, philanthropy, or combination of sources, communities will need to develop the mechanisms necessary to generate the resources required to execute the plan. It is important to ensure early success that can be celebrated and promoted, creating awareness and building momentum. A well-structured monitoring effort will allow community stakeholders to provide mutual support, encouragement, and accountability.

5. Evaluate and revise the plan

Change is the only constant. Digital devices and transmission capabilities, workforce requirements, economic drivers, and population demographics are all constantly changing. Change may be incremental and easily incorporated. Or, change may be shockingly dramatic, as when a major employer leaves – or one arrives. As circumstances change, implementation plans must change as well.

In today's information-based economy, digital inclusion is not a simple, one-time checkbox. Digital inclusion will require sustained effort, ongoing evaluation, and the willingness to revise the community's plans and strategies.

Principles of digital inclusion

Seven principles comprise the backbone of the Framework, divided into access principles and adoption principles. Access principles address the infrastructure a community needs to have in place in order to provide opportunities to benefit from digital life. Adoption principles look to overcome individual barriers that make use of broadband technology less likely, even when access is available.

Access principles

Principle 1: Availability

A reliable communications infrastructure is the raw material for innovation, growth, and competitive engagement in today's information-based world. Local and tribal governing bodies, the private sector, and community-based organizations that are bound to one another by geographic proximity and a shared infrastructure need to cooperate to effectively build and maintain appropriate and cost-effective broadband service. Recognizing that greater bandwidth speeds and coverage will be required in the future, these goals are intended to address the immediate needs for high-speed access while preparing for future growth.

Goals

- Access to high speed Internet is available in every household that meets or exceeds the service goals and milestones set by the Federal Communications Commission (FCC).

- Tribal lands and Native communities have affordable access to communication services and broadband technology.

- Sufficient bandwidth is available for multi-user environments, such as educational institutions, public libraries, medical facilities, museums and other organizations, to support current needs and future network demand.

- Comprehensive standards for broadband readiness in new buildings, renovations, and anchor institutions are adopted by appropriate governing bodies.

- The deployment of infrastructure is guided by right-of-way policies that remove barriers to market entry and system upgrades while limiting disruptions and ensuring other community interests.

Sample strategies

INDIVIDUAL

- Test actual upload/download speeds against advertised speeds at: http://www.broadband.gov/qualitytest/.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Ensure that community anchor institutions have access to cooperative high-capacity networks, such as Internet2.

- Develop partnerships with other organizations to share networks and leverage infrastructure investments.

BUSINESS SECTOR

- Support competitive policies to expand markets and encourage innovative options for providing broadband to underserved areas.

LOCAL AND TRIBAL GOVERNING BODIES

- Coordinate efforts and collaborate with other regions to reduce the costs of developing broadband infrastructure.

- Inventory existing network infrastructure, including service quality, costs, and location of community anchor institutions and validate the accuracy of information in the National Broadband Map (http://broadbandmap.gov/).

- Provide strategic incentives to stimulate market competition and private investment in broadband networks in underserved or isolated areas.

- Ensure that local and tribal government agreements with network providers are negotiated to obtain the highest possible download and upload speeds.

POLICY MAKERS

- Support policies and programs to evaluate the use of wireless spectrum, open additional spectrum, and provide increased bandwidth for use by public institutions.

- Promote standards for measuring upload/download speeds among local Internet Service Providers.

Principle 2: Affordability

Access to the Internet needs to be affordable for communities and their members to benefit from the expanded opportunities of digital life. Public and private entities need to partner together to lower the cost of digital access in general and to provide assistance to those who cannot bear the full cost of home access. Additionally, community members need to be able to understand their options in order to take advantage of competition in the broadband marketplace. These goals are aimed at developing pricing structures and support systems to enable businesses, institutions, and households to afford access to broadband and digital technologies.

Goals

- Internet Service Providers (ISP) provide uniform pricing information to enable consumers to easily compare plans available in the community.

- Programs that subsidize monthly Internet subscription costs are available to low-income households.

- Assistance with hardware, software, and peripheral equipment purchase and maintenance are available to low-income households.

Sample strategies

INDIVIDUAL

- Donate used technology equipment to nonprofit groups that provide equipment to low-income households and community organizations.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Raise public awareness about available Internet subsidies and assistance for purchasing computer equipment.

BUSINESS SECTOR

- Donate used computer equipment to nonprofit groups that provide hardware to low-income households and community organizations.

LOCAL AND TRIBAL GOVERNING BODIES

- Maintain local comparisons of Internet service provider prices and options.

- Promote standards for comparing prices of service bundles among local Internet Service Providers.

Principle 3: Design for inclusion

People with disabilities, physical or cognitive differences, and differences in age-related capabilities, language, literacy or culture may face challenges using technology and participating in digital life. As a result, they may be denied access to opportunities that could enhance well-being and promote independence. Failure to address the needs of people facing barriers negatively impacts not just those individuals but also the broader community, which will be denied their contributions to its civic, social, and economic health. The following goals reflect a commitment to erasing the boundaries between differences and reducing the obstacles to utilizing technology through principles of effective design.

Goals

- Assistance for ensuring access for people with disabilities and complying, at a minimum, with the letter, intent, and spirit of accessibility laws and regulations is provided to public and private organizations.

- People with disabilities, local and tribal governing bodies, businesses, and community organizations are provided with access to assistive devices and training about the range of technology and design solutions available to accommodate physical or cognitive differences.

- The Seven Principles of Universal Design are embedded into the design of technology-based services for local and tribal governing bodies, businesses, and community organizations. (http://www.ncsu.edu/project/design-projects/udi/center-for-universal-design/the-principles-of-universal-design/)

- Scripting, layout, and navigation of technology based-services are designed, localized, and optimized for multilingual and multicultural use.

Sample strategies

INDIVIDUAL

- Clearly express personal accessibility needs and preferred accommodations to technology providers, and advocate for these accommodations on behalf of others.

- Participate in volunteer programs that provide one-to-one assistance using technology to people with disabilities.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Engage in partnerships with community-based organizations that serve people with disabilities to better design services and accommodations.

- Maintain a central resource library of assistive technologies and best practices for accommodating people with disabilities.

- Hold workshops to educate businesses and community organizations about best practices in universal design.

BUSINESS SECTOR

- Align existing online presence with national standards for accessibility and language; move towards universal design for future projects.

- Invest in the development of assistive technology — with the participation of the disabilities community — to reduce cost, improve design, and enable new applications.

LOCAL AND TRIBAL GOVERNING BODIES

- Commit to adopting nationally recognized standards for technology accessibility and language; direct future projects toward universal design principles.

- Assess and manage information technology projects for government and essential services online in a manner that includes people with disabilities and other barriers in all phases of new technology development and deployment.

- Provide education, training, and incentives to businesses and organizations for creating accessible technology and complying with accessibility standards.

- Utilize public information campaigns to make the community more fully aware of the impact of technology design on people with disabilities and language or cultural differences.

POLICY MAKERS

- Support enforcement of existing accessibility laws as they apply to the digital environment.

- Support national efforts to promote the adoption and use of universal design standards for accessibility.

Principle 4: Public access

Public access to technology is necessary for community members who have little or no communication technology available in the home, need assistance to effectively use technology, or to supplement connectivity at home or in schools. Others need public access technology to assist during emergencies. Visitors need public access to be able to keep connected to family and work while away from home. Implementing the following goals will ensure that uninterrupted technology and connectivity are available through free public access.

Goals

- The community has sufficient, convenient free access to computers, Internet, wireless networks, and other communication technologies to support the needs of residents, workers, and visitors.

- Public access technology is located in safe facilities, with adequate levels of privacy, security, and accessibility for people with disabilities.

- Information about the availability and location of public access technology is widely disseminated.

Sample strategies

INDIVIDUAL

- Advocate for sufficient funding for libraries and other community-based organizations to support public access in the community.

- Share stories with policy makers about how public access technology benefits the community.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Develop partnerships between libraries and community-based organizations to provide public access to technology and technology support in high-need locations.

- Support development of community technology centers for special population groups and low-income housing complexes.

- Provide access to electronic information about community resources and services at strategic locations such as community-based organizations offering social service assistance.

BUSINESS SECTOR

- Develop partnerships and strategic alliances with libraries and other community-based organizations to provide public access equipment, trainers, and other resources.

- Inform users of business-supported wireless networks on best practices for protecting private information on public networks.

LOCAL AND TRIBAL GOVERNING BODIES

- Evaluate the public access needs of the community, develop a public access plan, and provide adequate funding and support for public access in libraries and other community institutions.

- Maintain a directory of public access providers and promote its availability.

- Support the development of wireless hotspots (including public-private partnerships) for residents and non-residents, especially in public spaces such as town centers, parks, and recreation centers.

POLICY MAKERS

- Support efforts to develop guidelines for determining the levels and types of public access necessary to support a community's needs.

- Support programs that provide resources for local public access, including E-rate and other funding programs.

Adoption principles

Principle 5: Relevance

Beyond having access to technologies, individuals, businesses, and institutions need to understand the relevance and benefits of using technology to achieve educational, economic, and social goals. Awareness of its potential benefits creates the motivation to master technology skills and learn more about effectively using broadband. These goals aim to help communities raise awareness of the value of technology and generate interest in adopting its use.

Goals

- Community institutions engage in outreach activities to help raise awareness about the benefits of using broadband and other digital technologies among non-adopters.

- Individuals are provided with help to make informed choices about Internet-based services, products, and information.

- Specially designed awareness activities and targeted content are developed to engage older adults in using technology.

- Local and tribal governing bodies, businesses, and community organizations support the creation of multilingual and multicultural content and promote use of digital technologies to diverse users.

Sample strategies

INDIVIDUAL

- Ask about digital technologies in the government, institutions, and businesses with which one interacts.

- Attend public sessions sponsored by organizations such as the public library to increase one's knowledge.

- If already knowledgeable about digital technologies, volunteer to provide tutoring or training at the public library, youth center, or senior centers.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Provide training and orientation sessions in multiple languages on digital technologies: what they are, how to use them, and the benefits and cautions around the most common applications.

BUSINESS SECTOR

- Provide information about digital services and products in plain, simple language; create informational material to help people understand their value, and offer one-on-one support to help people understand the technology and products offered.

LOCAL AND TRIBAL GOVERNING BODIES

- Create awareness campaigns about eGovernment and the value of residents accessing local and tribal governing bodies through digital technologies.

- Support the library and other institutions in promoting broad awareness of digital technologies.

POLICY MAKERS

- Advocate policies that promote plain language explanations of digital technologies to consumers and other users.

Principle 6: Digital literacy

Digital literacy skills, including the ability to find, evaluate, and use information to achieve goals, are a necessary pathway to digital inclusion. Digital communities meet the needs of their members for learning about technology and maintaining the skills necessary to take advantage of the opportunities enabled by it. The following goals help ensure that communities are able to provide effective digital literacy training to their members.

Goals

- Digital literacy training needs and assets in the community are identified and evaluated, and a strategy for meeting the digital literacy needs of the community is adopted.

- Digital literacy training in multiple languages is provided to individuals, businesses, and institutions through a variety of formats, including formal classes, real-time virtual help, and one-to-one assistance.

- Digital literacy instruction is embedded in all aspects of curriculum for K-12 and higher education, as well as in lifelong learning activities.

- Information literacy training and assistance is available within the community to help individuals learn to find electronic information and evaluate digital resources.

- Programs aimed at training consumers on the purchase, maintenance, and repair/recovery of technology equipment and services are available through community organizations.

Sample strategies

INDIVIDUAL

- Volunteer at the library to tutor a new user on basic computer skills.

- Help a neighbor connect to the Internet.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Coordinate existing efforts to provide digital skills and literacy training between libraries and other community organizations.

- Establish a computer lending program to enable home practice of basic digital literacy skills.

- Organize a "digital literacy corps" of volunteers to improve digital literacy outreach in the community.

- Create a central repository for community training resources.

BUSINESS SECTOR

- Form partnerships with libraries and CBOs to provide trainers for computer skills classes.

- Develop online mentoring programs with local schools.

LOCAL AND TRIBAL GOVERNING BODIES

- Provide online content and services that are designed for all levels of digital skills.

POLICY MAKERS

- Support strategies to train and provide digital literacy mentors to libraries and CBOs providing community technology services.

- Support the creation of a national outreach and awareness campaign on why broadband matters, focused on key segments of non-adopters.

Principle 7: Consumer safety

Consumers — both individual and institutional — need accurate, unbiased information on how to safely navigate the digital world. Engaging in digital life requires the knowledge to protect against online threats, and the ability to limit unwanted access to and use of personal information. Online safety is a personal responsibility, but it also requires collective action to educate and assist consumers and enforce standards. The following goals reflect a shared agenda for creating the safest possible online environment for the community.

Goals

- A strategy for training and educating community members about safeguarding personal information, using parental controls, protecting vulnerable populations from online bullying and exploitation , maintaining systems free of viruses, and protecting against other forms of online abuse has been adopted by all providers of Internet services and content.

- Privacy policies are adopted by businesses and government that are visible, easily accessible, and comprehensible to consumers.

- Local law enforcement agencies are equipped with strategies and the authority to pursue cybercriminals while protecting individual civil rights.

- Affordable software and technical assistance are available to support household network security for vulnerable populations.

- Information is widely disseminated through public information campaigns about individual and organizational rights and obligations with regard to intellectual property.

Sample strategies

INDIVIDUAL

- Maintain awareness of activities children are engaged in online.

- Secure home networks and accounts with strong passwords.

- Educate children about use of technology and online dangers.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Engage in coordinated educational activities and public awareness campaigns to raise the visibility of online safety issues.

- Develop procedures for securing sensitive client information.

- Develop partnerships and utilize common curriculums to educate consumers on purchasing and maintaining technology.

BUSINESS SECTOR

- Implement policies and processes for protecting customer information and for training staff in following security procedures.

- Support legislation that enables prosecution of cybercrime.

LOCAL AND TRIBAL GOVERNING BODIES

- Provide information about online safety with targeted messages to children and families, the elderly, and other vulnerable populations.

- Fully comply with policies and leading practices to ensure the security and safety of eGovernment activities.

- Ensure that contractors handling sensitive government information have effective safeguards in place to protect data.

- Coordinate efforts with other government agencies to fight security threats to public and government networks.

- Support the investigation and prosecution of cybercrime.

POLICY MAKERS

- Urge adoption of consumer rights and data protection regulations.

- Support FCC efforts to create a voluntary cybersecurity certification program.

Strategic areas for digital inclusion

The thoughtful deployment of broadband technologies in six specific strategic areas can strengthen   communities and can improve the lives of their residents. Change may be evident in terms of economic success and increased new business development, academic excellence and innovation in the classroom, sustainability, or a higher quality of life for inhabitants. Once a community and its residents are connected and digitally literate, they can take advantage of the benefits of broadband in real and tangible ways. Community leaders in each of these areas working with the public can best assess local strengths, needs, and opportunities.

The six strategic areas are 1) Economic and workforce development; 2) Education; 3) Health care; 4) Public safety and emergency services; 5) Civic engagement, and, 6) Social connections.

Economic and workforce development

Communities need to develop the knowledge and skills of future workers and entrepreneurs, as well as help the current workforce update its competencies to meet the needs of employers. Broadband adoption can generate new business opportunities in economically depressed areas and can help ensure sustainable growth. The following goals are aimed at enabling productive public-private partnerships to promote jobs and prosperity, to attract and retain business and workers, and to prepare the current and future workforce to use technology productively.

Goals

- Libraries and community-based organizations engage in partnerships and cross-agency collaborations to enhance the community's workforce training capacity.

- Small businesses and local entrepreneurs are supported by eCommerce and eGovernment tools in their efforts to successfully engage with technology and promote their services online.

- Workforce technology trainers are available in sufficient numbers to support the needs of the community.

- Online career information and specialized assistance with online job-seeking is available through local and tribal governing bodies, libraries, and other community-based organizations.

Sample strategies

INDIVIDUAL

- Become a mentor or career coach, to help new users of digital technologies understand their potential uses in employment.

- Keep up-to-date with technology skills by attending training provided in the community and through online tutorials.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Provide assistance, training, tools, and resources for job seekers.

- Develop partnerships with local colleges and technical schools to help new business owners access and use technology.

- Develop public-private partnerships and cross-agency collaborations to better utilize and/or enhance the workforce training capacity of public libraries and community-based organizations.

BUSINESS SECTOR

- Make job application procedures appropriate to the skill level required for the position.

- Provide public kiosks for submitting job applications.

- Develop partnerships with libraries and CBOs to offer workforce training in specialty areas.

LOCAL AND TRIBAL GOVERNING BODIES

- Include digital technologies as part of economic development plans and community economic needs assessments.

- Include digital access in all workforce development and jobs programs.

- Encourage cross-sector partnerships to promote workforce development.

POLICY MAKERS

- Support the integration of broadband infrastructure into regional planning for economic development.

- Support the creation of innovative national online career tools.

- Encourage federal agency partnerships to foster common goals toward workforce development.

Education

Educational institutions should ensure that students have the digital skills to reach their full potential by connecting them to a diverse range of electronic resources. Technology allows learners to discover educational opportunities, improve academic performance, and prepare to fill the jobs of today and tomorrow. These goals highlight education as a community asset that can benefit from readily available technology.

Goals

- Technology is embedded in curriculum design and instruction, in both formal K-12 and post-secondary institutions to prepare students for 21st century opportunities and challenges.

- Teachers are trained by qualified instructors on the use of technology in instruction.

- Home access to hardware and Internet connections is available for households with K-12 students to support academic success and interactions among caregivers, schools, and instructors.

- Public access technology centers provide assistance for doing homework, conducting online research, completing other academic tasks using digital resources, and supplementing home access.

Sample strategies

INDIVIDUAL

- Tutor students with their online homework, research, or other academic tasks.

- Volunteer in schools to help others gain digital literacy skills.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Develop computer loan programs or lease programs to provide learners with computer hardware in the home.

- Provide awareness training for parents on educational technologies being used by students.

- Provide training and support for caregivers to enable them to interact with instructors and schools using digital technologies.

- Coordinate efforts of schools, libraries, museums and community-based technology centers to maximize delivery of in-school and out-of-school student learning tools.

BUSINESS SECTOR

- Develop relationships with K-12 and post-secondary institutions to provide educators with current information on the skills employers need for the 21st century workforce.

- Create directed learning opportunities for secondary and post-secondary students as a long-term investment in the community's workforce of tomorrow.

LOCAL AND TRIBAL GOVERNING BODIES

- Support the local school system in its digital strategies.

- Leverage cable television and other franchises to support free or reduced cost access to the Internet for students of low-income households.

- Include student access centers in government facilities supporting children and youth, such as recreation centers, libraries, and non-profit youth service providers.

POLICY MAKERS

- Support efforts to adopt standards for maintaining and securing electronic educational records.

- Support efforts to reduce barriers for obtaining E-rate funding for schools and libraries.

Health care

Efficiencies and cost-savings in health care delivery, improvement to patient care, and support for independent living and management of health concerns are all enabled by access to broadband and digital technology. Technology supports more effective health care by connecting local practitioners and hospitals with information and specialists around the world; it contributes to better safety for patients by enhancing communication between health care providers and patients; and it creates opportunities for better health education and dissemination of information. The following goals aim to ensure that residents are able to actively manage their own health, and technology is used to provide efficient health service delivery.

Goals

- Secure systems enable local medical professionals and community-based health clinics to share medical records among health care providers.

- Patients have access to user-centered online health information systems, medical records, and private online interaction with health care providers.

- Health care providers and patients are given training on how to use health information systems.

- Transitioning to online health care resources and services is managed to ensure support for new users and non-users of digital technologies, and for those who lack access to technology.

Sample strategies

INDIVIDUAL

- Volunteer to help patients navigate online information at local hospitals and health clinics.

- Utilize online health resources to improve health, manage chronic illnesses, and communicate with health care providers.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Provide access to electronic medical records and telehealth services through secure and private public access technology.

- Create consolidated online local health resources accessible through health care agencies and providers, libraries, and other community organizations.

- Provide targeted training for using health technology.

- Provide training for the public on how to locate and evaluate health information.

LOCAL AND TRIBAL GOVERNING BODIES

- Include the use of digital technologies in the development of health and fitness programs in the community.

- Promote partnerships between health care providers and institutions, such as the public library, that provide public access to digital technologies.

- Ensure that public health information is distributed through digital technologies and that adequate access is available to all populations.

POLICY MAKERS

- Support efforts to establish common standards for sharing research and clinical data.

- Support efforts to ensure that health care delivery locations have access to sufficient bandwidth for high-demand applications.

Public safety and emergency services

Residents and first responders need integrated communications systems for emergency and disaster preparation, response, and recovery. Communities can strengthen their emergency responsiveness through effective deployment of digital technologies: enabling better ways to call for help, coordinate responses, and distribute information during emergencies. Technology can also be mobilized to prevent and investigate criminal activity and to empower residents to improve neighborhood safety. The following goals reflect a need for coordinated, community-wide involvement in planning, preparing, and responding to emergencies and public safety threats in order to create a safe and resilient community.

Goals

- Communities have sufficient secure, resilient, and redundant wireless broadband capacity to support emergency responders throughout planning, preparing, responding, and recovering from emergencies.

- Interoperable and redundant emergency alert networks are in place across mobile, wireless, and wired networks via Common Alerting Protocols.

- Public libraries, schools, and other community institutions provide digital access to residents or evacuees during emergencies.

- Digital tools are used for community-developed online content relating to public safety, emergency preparation, and response.

- Alternative emergency plans account for instances when technology is not available and for how to respond to the needs of community members who do not have technology access.

Sample strategies

INDIVIDUAL

- Sign up for text and email services offered by local emergency services.

- Create a neighborhood emergency communication network using social media technologies.

- Make a personal plan for emergencies, including contingencies for the loss of digital technologies.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Engage actively in emergency and disaster planning to identify the range of activities that the institution can support in education, prevention, planning, response, and recovery.

- Develop continuity plans for the institution that provide for resiliency and quick recovery in order to support the community. Specifically create contingency plans for the loss of digital technologies.

- Train staff and test the emergency plans.

- Serve as an information center on the wide range of ways that people can be safe in normal and extreme conditions.

LOCAL AND TRIBAL GOVERNING BODIES

- Address issues of digital access and inclusion in the comprehensive emergency plan. Specifically address the resiliency of digital technologies in the community and make contingency plans for the loss of the technologies and for rapid recovery.

- Actively include the public library and other institutions involved with digital inclusion in planning, training, and testing of emergency plans.

- Make emergency plans, and other public safety information available digitally, with specific emphasis on populations that have special needs.

- Invest in proven current digital technologies such as enhanced 911 systems, computer aided dispatch, and electronic mapping technologies.

- Provide online resources for residents to use for developing personal disaster-preparedness plans.

POLICY MAKERS

- Support the development of national interoperable public safety wireless broadband networks.

- Support national efforts to ensure that broadband communications are preserved during emergencies.

Civic engagement

Electronic interaction between community institutions, government agencies, and individuals creates enhanced opportunities for active participation in community affairs. Community members can make use of technology to develop and promote a wide range of civic activities and connections that enrich public life while expanding the network of involved participants. Technology can also help enhance government transparency and accountability. The following goals aim to create increased opportunities for the public to participate in governance, by bridging officials and constituents online and by providing the means for people to voice their opinions and influence decisions.

Goals

- The public connects directly to governments and their agencies, and with each other, in order to learn about and discuss public issues and policies.

- Online access to government information and services meets interoperability standards and is appropriate for users of all skill levels and language needs.

- The community has convenient, secure, and private digital access to government resources and services.

- Technology is utilized to organize community events, to encourage volunteerism and youth participation, and to facilitate problem-solving for community concerns.

Sample strategies

INDIVIDUAL

- Provide feedback to government agencies about online services.

- Join — or start — community networks to communicate with others about shared concerns.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Provide a central civic engagement portal for information to residents about local events and resources, as well as online government services.

- Encourage the use of blogs and notification tools so that libraries and CBOs that help people navigate public information can be kept updated with changes to government websites.

- Become "online town halls" for eDemocracy, for participants to shape public agendas and discuss public issues.

- Embed civic engagement and civic knowledge in education and digital literacy training.

LOCAL AND TRIBAL GOVERNING BODIES

- Educate community members about their civic role; provide opportunities for them to interact with government agencies and officials using tools that fit individual or specific community needs.

- Provide residents with the ability to create "My eGovernment" to personalize their interaction with government agencies and officials.

- Encourage the private sector to work with open information, and to develop new applications and ways of using government data.

- Apply care to initial design, updates, and the frequency of redesign to minimize users' confusion and the need to re-familiarize themselves with government websites.

POLICY MAKERS

- Dedicate resources to develop open standards for government information.

- Promote the adoption of social media technologies that government can use to interact with residents.

Social connections

Individual members of a community should have access to technologies that promote social engagement and the pursuit of independent learning and creative interests. Technology provides new opportunities for people to express themselves, enjoy activities with family and friends, and get support for personal problems. Lifelong learning and access to new ideas can also spark innovation and creativity. The following goals reflect the ability of technology to foster relationships that support quality of life and well-being in digital communities.

Goals

- Interactive, high-quality multi-cultural content is available through public libraries, museums, archives, and other cultural institutions.

- Programs to encourage development of local content and participation in social networks are available for vulnerable and diverse community members.

- Intergenerational ties are strengthened through technology interaction between youth and older community members.

- The community supports the use of technology for digital preservation and appropriate sharing of local history and contemporary culture in order to build an enhanced sense of community, belonging, and continuity.

- Support and tools are available to produce, archive, and distribute local media programs and other digital content produced by local voices.

- Digital technologies are used as a means of preserving and sharing diverse cultures, if appropriate.

Sample strategies

INDIVIDUALS

- Help an older friend or relative connect to online support communities or communicate with distant family members.

- Connect with like-minded people around an interest area or hobby.

- Provide translation services to community organizations serving multilingual populations.

LIBRARIES, CBOS, AND OTHER COMMUNITY ANCHOR INSTITUTIONS

- Maintain directories of locally produced content.

- Design a digital story project for collecting local history.

- Support community-based design efforts to mobilize rapid development of high-quality local content by maintaining technology labs and incubators.

- Ensure that online content is available in languages utilized by the community.

- Develop content and applications geared towards a variety of different abilities and cultures.

LOCAL AND TRIBAL GOVERNING BODIES

- Provide funding for cultural institutions to develop local content.

BUSINESS SECTOR

- Use social networking to promote local recreational activities and events.

- Support crowd-sourcing development of new applications.

POLICY MAKERS

- Advocate for use of social networking to facilitate respectful conversations among people with differing viewpoints.

ABOUT THE PARTNERS

The Institute of Museum and Library Services is the primary source of federal support for the nation's 123,000 libraries and 17,500 museums. The Institute's mission is to create strong libraries and museums that connect people to information and ideas. The Institute works at the national level and in coordination with state and local organizations to sustain heritage, culture, and knowledge; enhance learning and innovation; and support professional development. To learn more about the Institute, please visit www.imls.gov.

University of Washington
The Technology & Social Change Group (TASCHA) at the University of Washington Information School explores the design, use, and effects of information and communication technologies in communities facing social and economic challenges. With experience in 50 countries, TASCHA brings together a multidisciplinary network of social scientists, engineers, and development practitioners to conduct research, advance knowledge, create public resources, and improve policy and program design. Our purpose? To spark innovation and opportunities for those who need it most.

ICMA, the International City/County Management Association, advances professional local government worldwide. Our mission is to create excellence in local governance by developing and advancing professional management to create |sustainable communities that improve lives worldwide. ICMA provides member support; publications; data and information; peer and results-oriented assistance; and training and professional development to nearly 9,000 city, town, and county experts and other individuals and organizations throughout the world. The management decisions made by ICMA's members affect millions of individuals living in thousands of communities, from small villages and towns to large metropolitan areas.

CONTACT

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RECOMMENDED CITATION

Institute of Museum and Library Services, University of Washington Technology & Social Change Group, International City/County Management Association. (2012). *Building Digital Communities.* Washington, DC: Institute of Museum and Library Services.

DOWNLOAD THE COMPLETE REPORT

Building Digital Communities: A Framework for Action. This is the final report to IMLS from the University of Washington and the International City/County Management Association. It explains how the framework was developed from the initial stages through the community and leadership forums. It includes a comprehensive bibliography arranged by subject. — available at tascha.uw.edu/digital-inclusion-framework