DIGITAL OPPORTUNITY PLANNING GUIDE FOR PUBLIC LIBRARIES

2024

Prepared for: Montana State Library

ACKNOWLEDGEMENTS:

https://home.msl.mt.gov/

## Table of Contents

I.   Introduction

A. Overview

The passage of "The American Rescue Plan Act (ARPA)" and the "Infrastructure Investment and Jobs Act (IIJA)," has resulted in significant funding to improve rural broadband access and to expand digital inclusion programs. The National Telecommunications and Information Administration, (NTIA) is overseeing programs to distribute these funds and to establish multiple programs addressing broadband and digital equity needs. At the state level, the Montana Department of Administration has received a grant from NTIA to prepare a statewide digital equity plan that will be the basis of future funding for digital equity projects.   Libraries will be an important partner in this effort.

B. What is Digital Equity

According to the IIJA, "Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services."   The National Telecommunications Information Administration (NTIA) identifies the importance of digital equity in all sectors of our community.
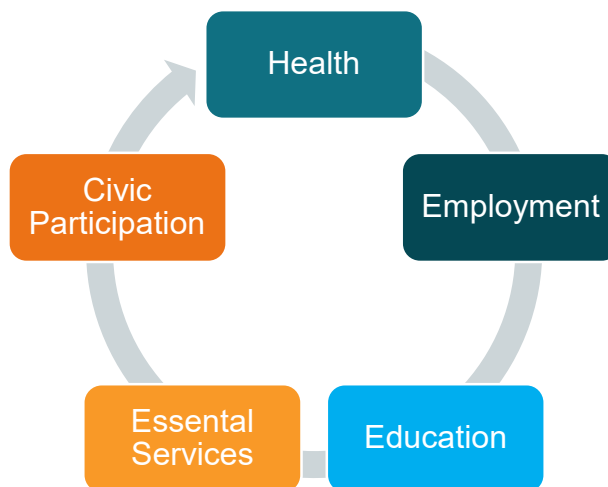
Source: https://broadbandusa.ntia.gov/sites/default/files/2023-02/DE_Concept_to_Enablement_Workshop.pdf

The three basic components of digital equity are:

Availability: Is there sufficient infrastructure and coverage to deliver reliable, high-speed wired or wireless broadband service and technology tools for learning? Do households have devices to access the Internet?

Affordability: Can learners and families/caregivers pay for the total cost of maintaining reliable, high-speed broadband service and technology tools for learning?

Adoption: Do learners and families/caregivers have the information, support, and skills to obtain regular, adequate access to reliable, high-speed broadband service and technology tools for learning?
Source: Office of Educational Technology "Advancing Digital Equity for All

C.   Digital Equity & Libraries

Libraries are particularly suited to be an active digital equity partner. They are anchor institutions that have a long track record of addressing digital equity issues. They are community hubs with facilities such as meeting space, public access computers, Internet access and other resources to address digital equity needs.

Additionally, libraries are trusted institutions that are already serving populations that are the target of the Digital Equity Act.   Libraries have connections with community stakeholders to offer programs. Collaborating with community organizations to implement programs to achieve digital equity outcomes is the most effective means to leverage resources and reach the most people. The following examples demonstrate potential partnerships between libraries and other community organizations.

- Health – Increase access to telehealth by establishing relationships with local health care providers for programs such as offering dedicated space for telehealth appointments. Telehealth improves patient outcomes and can reduce emergency department visits.

- Essential Services – Library can offer free public access to high-speed Internet so patrons can access essential services in the community such as public safety, utility, and transportation information.

- Employment – Partner with workforce and economic development agencies to establish training programs for digital job skills and to aid job seekers. Such efforts help employers meet their staffing needs.

- Civic Engagement – Access to the Internet and devices enables online civic engagement. Citizens can use library wi-fi and public access computers to connect online with elected officials, access information on government websites and participate in on-line public meetings.   Libraries can direct patrons to reliable on-line information regarding elections.

- Education – Libraries can partner with local colleges and universities to provide free digital literacy classes. Students can use free wi-fi at libraries to access the Internet for homework assignments and adults can access on-line continuing education classes.

II. State and Federal Digital Equity Programs

A. Federal Digital Equity Programs

In 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA) into law. This act created the Broadband Equity, Access and Deployment (BEAD) program with funding for broadband infrastructure and the Digital Equity Act (DEA) with funding for digital equity programs. To receive these funds, states must submit statewide plans and grant applications to the National Telecommunications and Information Administration (NTIA).   The DEA funds three grant programs:

1. State Digital Equity Planning Grant Program:

   This is a grant program for states and territories to develop digital equity plans. ConnectMT is the state broadband office for Montana and was awarded a planning grant in the spring of 2023 to create a "Digital Opportunity Plan". In the spring of 2022, the office conducted public meetings at various location around the state and released a draft plan for public comment in June, 2023. The final plan was submitted to NTIA in January 2024.

2. State Digital Equity Capacity Grant Program:

   This is a grant program for states and territories distributed via annual grant programs over 5 years to implement digital equity projects and support the implementation of digital equity plans. It is anticipated that the NTIA will release the Notice of Funding Opportunity (NOFO) in the spring of 2024 and funding is anticipated to be available in the first half of 2024.   Only state entities are eligible for this funding.   NTIA recommends that individual library plans are aligned with state plans to demonstrate that libraries are helping the State meet their digital equity goals.

3. Digital Equity Competitive Grant Program:

   This discretionary grant program will be distributed vial annual grant programs over 5-years to implement digital equity projects. Eligible applicants include specific types of political subdivision, agency, or instrumentality of a state; tribal governments; nonprofit entities; community anchor institutions; local educational agencies; and entities that carry out workforce development programs. Libraries are considered community anchor institutions and may apply directly for these programs. These grants will emphasize collaboration and partnerships and it will be important for local libraries to identify opportunities for partnerships if they plan to apply for this grant program.

B. Montana Digital Equity Programs

The ConnectMT Act was passed by the 2020 Legislature and established the Montana Broadband Office to be housed in the Montana Department of Administration (DOA).   The office is responsible for administering funds that Montana receives from federal broadband infrastructure deployment and digital equity programs.   As part of this responsibility, the office worked with a consultant to develop the Montana "Digital Opportunity Plan".   The process to develop the plan involved public meetings that were conducted around the state in 2023, an on-line survey, and a public comment period on the draft plan in the fall of 2023.   The draft plan included the following vision statement and goals:

> **Montana Digital Opportunity Plan – Vision Statement**
> To narrow the digital divide in support of Montana's economic, workforce, health and educational goals by ensuring reliable, affordable internet access for all Montanans.

Goal 1: Ensure all Montana residents have access to affordable internet and necessary devices in their homes, schools, libraries, and businesses irrespective of their income levels.

Goal 2: Reduce the digital divide amount all Montana residents by increasing broadband adoption by covered populations and increasing access to online resources for all residents.

Goal 3: Build digital skills to enhance broadband use through programs and partnerships with community stakeholders.

Goal 4: Reduce the digital divide among all Montana residents by increasing broadband adoption by covered populations and increasing access to online resources for all residents.

Goal 5: Ensure all Montana residents have access to internet that meets online privacy and cybersecurity standards.

Distribution of funds by the state from the DEA will be consistent with these goals. The plan also indicates that the Montana State Library and local libraries will be key partners in implementing several key strategies in the plan.   Specific program areas that are the focus of the Digital Opportunity Plan include the following:

Table 1:   Montana Digital Opportunity Plan Summary of Strategies

Focus Area	Strategies
Access	• Connect the undeserved areas • Upgrade the underserved • Invest in community anchor institutions
Affordable Subscriptions	• Increase Affordable Connectivity Program (ACP) uptake • Subscription subsidies • Offer low-cost plans
Devices access	• Community Anchor Institutions loan programs • Community Anchor Institutions access points • Device subsidies • Strategic partnerships to purchase/distribute devices •
Digital Literacy	• Develop digital skills curricula • Fund targeted training programs • Stand-up digital navigator programs

Source: https://connectmt.mt.gov/2023.06.27_Digital-Opportunity-Plan_WEB.pdf

III. Digital Equity Planning Process

Libraries can be a leader in helping community members overcome barriers to accessing information technology. A digital equity plan is a tool to identify specific challenges within the community and to identify resources, partners, and strategies to address local needs. A digital equity plan will provide the basis for applying for grants and other funding. As noted by the NTIA:

> "Libraries play a central role in supporting and advancing digital equity, literacy, and inclusion. NTIA encourages States to involve both state and local libraries in the planning processes and implementation for both the Broadband Equity, Access, and Deployment (BEAD) Program as well as Digital Equity Act Programs"
> https://broadbandusa.ntia.doc.gov/sites/default/files/2023-03/How_to_Engage_with_Libraries_for_SBOs.pdf

The planning process relies on data, community engagement, and goals to help focus the library's efforts. The plan provides a strong foundation for grant proposals and partnerships. It offers benchmarks to measure progress in closing the digital divide. Additionally, digital equity plans can incorporate capacity-building activities such as staff training, community outreach and educational programs. Such initiatives can maximize the impact of digital equity efforts and demonstrate a commitment to continuous learning and skill development.

This guide reviews the following steps to developing a digital equity plan. These steps can be integrated into the libraries overall strategic planning process or can be done as a stand-alone planning process.

Needs Assessment	• Identify Stakeholders & Targeted Groups • Compile Data • Inventory Tech Assets
Community Engagement	• Survey • Meetings • Task Force
Establish Goals	• Goals & Objectives • Target Populations • Workforce, Education, Health, Civic .....
Action Plan	• Availability, Affordability, Adoption • Capacity Building • Partnerships
Resources	• Technical Assistance • Funding • State & Federal Programs

IV. Digital Equity Needs Assessment

A. Community Engagement

Digital equity plans should reflect the needs of the community.   Engaging stakeholders will help identify issues, existing digital equity efforts, community resources and potential areas of collaboration. Potential stakeholders include any individuals or organizations involved in or interested in State and Local broadband efforts. Some key groups include:

Local governments	State agencies	Educational Instituions	Tribal Entitites	Nonprofit organizations
Workforce development agencies	Public housing	Health & Social service providers	Internet Service Providers	

It is also important that under represented communities be involved in the planning process. These are groups that are disproportionally impacted by digital inequity. Outreach to these underserved groups, and agencies that serve these population, will provide valuable information on the effectiveness of existing programs and may suggest additional efforts to address the digital divide. The Digital Equity Act includes the following covered populations:

- Individuals who live in covered households.
- Aging individuals.
- Incarcerated individuals,
- Veterans.
- Individuals with disabilities.
- Individuals with a language barrier, including individuals who
    - Are English learners.
    - Have low levels of literacy.
- Individuals who are members of a racial or ethnic minority group.
- Individuals who primarily reside in a rural area.

The NTIA recommends undertaking multiple outreach methods to engage stakeholders. Community surveys that are supplemented with either focus groups or community meetings are highly recommended. Some libraries will create a task force to assist with the plan. Scheduling, staffing, and budget resources are considerations for choosing the appropriate outreach techniques.

	Quantitative Data	Broad Audience	Subject Matter Experts	Facilitates Discussion	Direct Engagement	Consultation
Surveys	X	X				
Focus Groups			X	X	X	
Community meetings				X	X	
Task Force			X	X	X	X

(Note: Sample survey questions are included in appendix.)

B. Community Profile

Socio-economic data helps target programs for "covered populations". Data establishes a baseline to measure progress and highlights changing population trends.   Data on technology use is available from several sources and allows for a comparative analysis with other similar communities.   Collecting data from objective public sources confirms the extent of issues identified in the public engagement stage and may indicate additional issues that were overlooked.

The data analysis in digital equity plans are an important part of the needs assessment and is critical to support grant applications. Demonstrating how technology use and broadband adoption compares to state and national averages is particularly compelling evidence of needs.

Various resources are available from the U.S. Census, Montana Census and Economic Information Center and the FCC Broadband map. Compiling this data offers broadband and socio-economic metrics on both a state and countywide basis. See the appendix for examples of data downloaded from the census and Montana Site Selector.   Another useful source are the broadband maps from the Federal Communications Commission (FCC) indicating Internet availability.

Chart 1: FCC National Broadband Map – Area Summary Lewis & Clark County

Source: https://broadbandmap.fcc.gov/location-summary/fixed
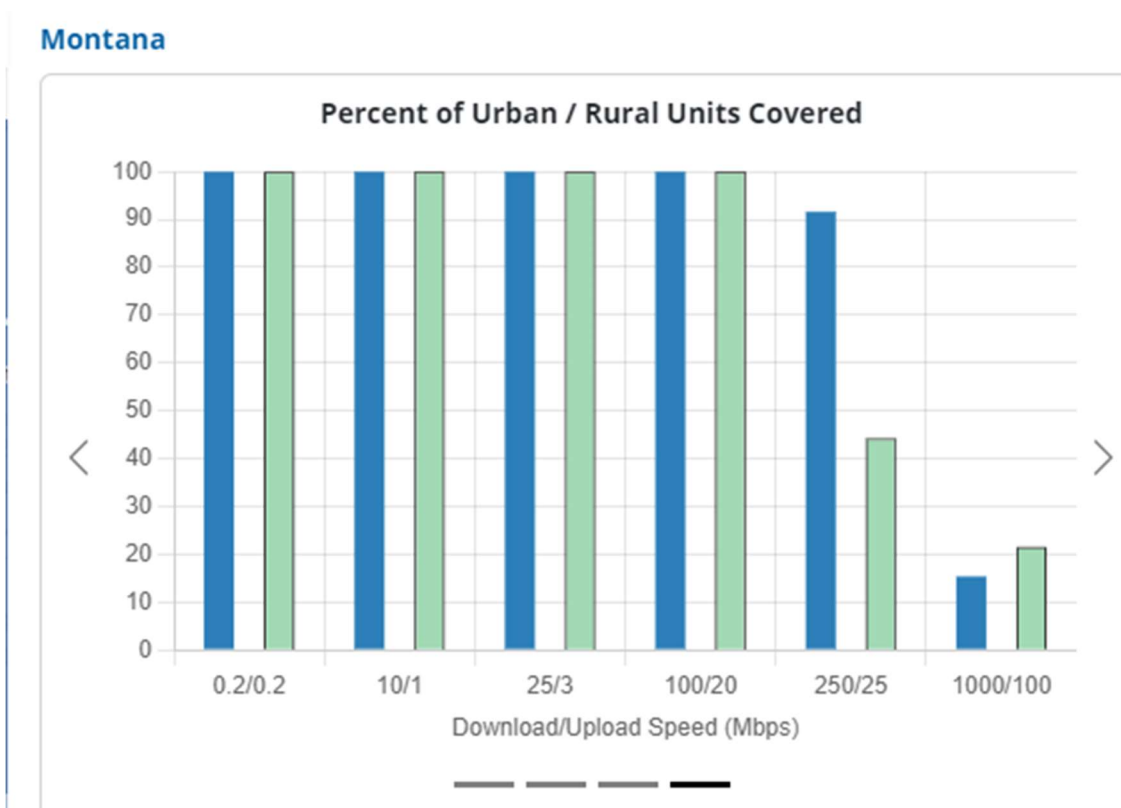
### C. Inventory of Digital Equity Assets & Programs

Libraries are typically community leaders in providing digital equity programs. Such digital equity programs assist community members gain access to appropriate technology devices, reliable broadband, and digital skill building. Documenting existing efforts increases awareness about these library services and allows staff to assess how well such programs are meeting community needs

To provide these digital equity services requires sufficient technology resources, trained staff, broadband connections, and adequate facilities. Tracking usage indicates if there is growing demand for certain types of assistance while an inventory of technology resources suggests if upgrades are necessary. A component of the State Digital Opportunity Plan is to, "Catalog existing CAI device access points and determine their needs or opportunities for expansion."

A review of training offerings is helpful in determining if existing training is current to reflect workplace expectations and to allow community members to access on-line services.   It is also important to consider privacy and cybersecurity issues as part of the review.

The chart below illustrates the components of a digital equity inventory. The inventory is a tool to determine if there are any gaps in services. The checklist in the appendix may suggest if additional initiatives are required to meet library goals for digital equity. Partnerships with local groups are an effective way to help the library meet community needs.

Components of a Digital Equity Inventory
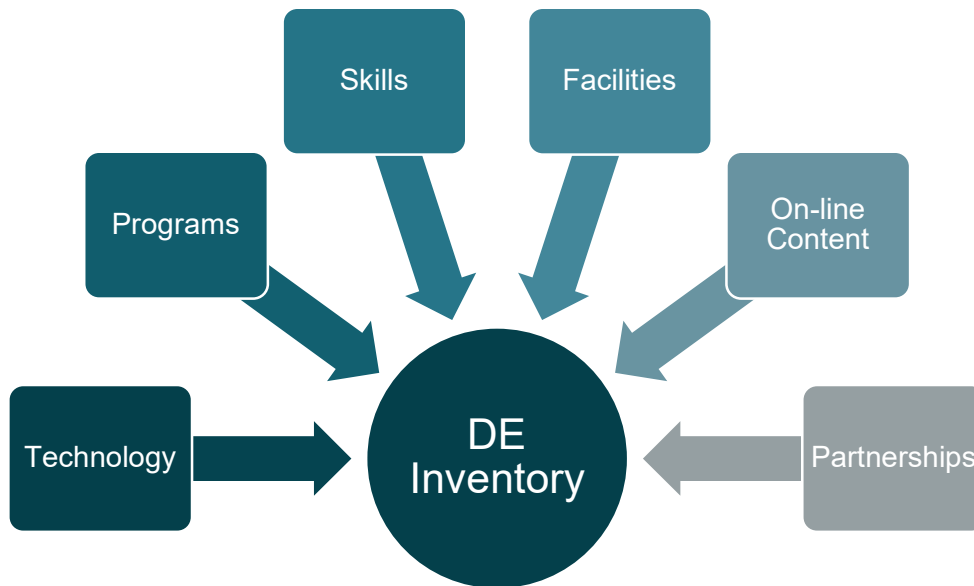
V. Digital Equity Goals

Establishing digital equity goals provides a framework for developing strategies and evaluating projects. Goals are broad statements to describe a desired outcome.   Goals are long term and provide direction and focus for the plan. Funders will often review an organization's planning goals to determine if they are consistent with the overall mission of the grant program.

The basis for establishing the goals is public input and data analysis that was gathered as part of the needs assessment. By summing up key findings from the needs assessment it will indicate common barriers that the local population is experiencing in fully adopting digital applications and will also indicate barriers that are unique to specific populations.   The goals and objectives of the plan should reflect these barriers as well as the following Digital Equity Act objectives.

- a. The availability and affordability of access to fixed and wireless broadband technology;
- b. The online accessibility and inclusivity of public resources and services;
- c. Digital literacy;
- d. Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity

The Institute of Museum and Library Services, "Building Digital Communities Framework", has a comprehensive list of principles, goals and objectives for digital inclusion that are a useful reference when drafting local goal statements. Upon summarizing the key findings from the needs assessment, it would be worthwhile to review this document to generate ideas for goals that could help the library's local issues. The topics addressed in the IMLS framework are illustrated below:

Principles of Digital Inclusion

Access
- Availability
- Affordability
- Design for inclusion
- Public Access

Adoption
- Relevance
- Digital Literacy
- Consumer safety

Applications
- Economic & workforce development
- Education & Health Care
- Public safety and emergency services
- Civic engagement & social connections

https://www.imls.gov/sites/default/files/publications/documents/buildingdigitalcommunitiesframework.pdf

VI. Digital Equity Best Practices

A.   Montana State Library Survey

In 2023, the Montana State Library conducted a survey of libraries in the state to identify the status of digital equity programs in the state as well as determine preferences for offering various services. Sixty-five libraries participated in the survey with representation in each of the six Federations.   As indicated in the table below, the most popular digital equity services were free wi-fi service and public access computers.

Chart 2: Most Popular Digital Equity Programs Offered in Montana Libraries
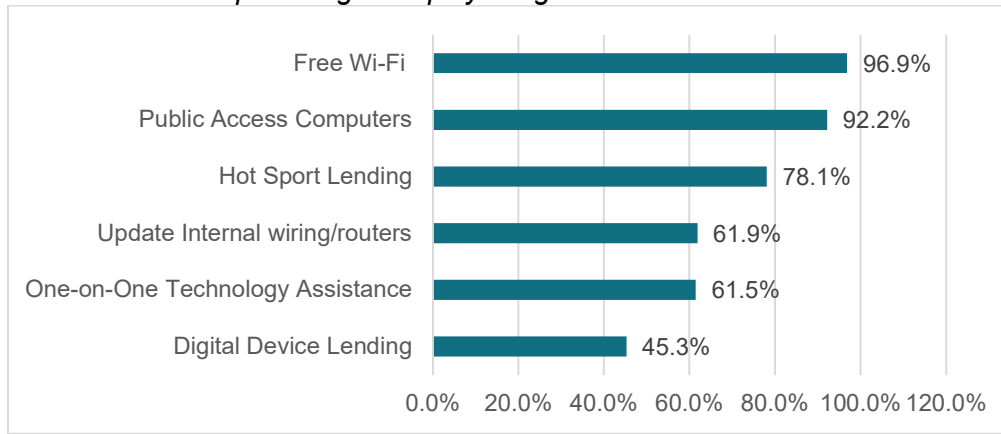
In response to questions about investing in digital equity programs either through expanding existing services or offering a new service in the future the most popular responses were completing digital equity plans and digital skills training. Of note is that only 19% of libraries are participating in the E-rate program and 56% indicated they had no interest in the program.

Chart 3:   Digital Equity Programs with Most Interest in Expanding or Adding to Library Services
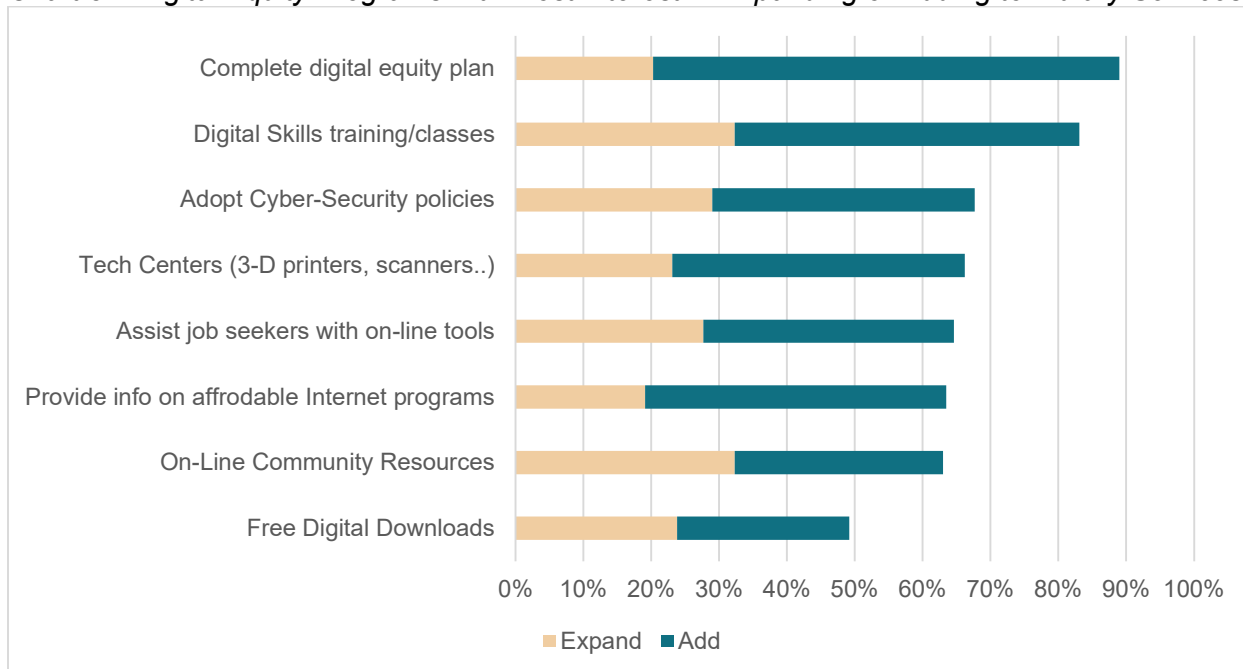
B. Best Practices

A review of NTIA resource materials, digital equity web sites and digital opportunity plans from other states suggest additional digital equity activities. Some notable projects include:

Education Partnerships – Partner with local colleges/schools to provide on-line classes, GED assistance, English as a second language, career skills, STEM and life-long learning opportunities. Americorp Economic Opportunity volunteers are a resource for teaching digital literacy classes.

Civic Engagement – Provide links to on-line community information, including online and local, state and federal elections. Provide space and digital/computer resources for community meetings.

Information and social media literacy training – Provide training to help individuals evaluate electronic information and digital resources to avoid fraud, scams and other unsafe on-line practices.

Telehealth – Establish relationships with local health care providers and provide dedicated space for telehealth appointments. (https://libraries.idaho.gov/telehealth/toolkit/)

Digital Navigators – Institutes a digital navigator program to provide one-on-one help to patrons needing extra assistance with basic internet/computer skills or to access low-cost Internet programs. There is potential to partner with community organizations to staff this program. (For example, a rural electric cooperative sponsors a program for high school students to volunteer to assist senior citizens with computer skills. (tri-countyrec.com/senior-2-senior-program/)

Outreach to Covered Populations – Work with community partners to provide support to marginalized populations (seniors, rural, unhoused populations, Veterans, formerly incarcerated persons…) to help them access supportive services.   (Arkansa

Support for People with Disabilities – Design accessible spaces for public access computers and provide computer stations with assistive technology located throughout the library to accommodate patrons with impaired vision or hearing.

GIS HUB – Partner with state agencies (Montana State Library and Montana Census and Economic Information Center), and local governments to assist community members in accessing on-line GIS, geospatial applications and census information.

Emergency Communications Hub – Coordinate with local emergency service offices to offer library space and public access equipment for communication purposes during disasters with outreach especially to covered populations in the DEA.

Local Cultural Preservation - Communities support 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.

Entrepreneur/Innovation Incubator – Partner with local economic development agencies to identify opportunities for providing meeting space with digital resources and technology to support local entrepreneurs.

VII. Digital Equity Action Plan

The final component of the Digital Equity Plan is an action plan that outlines the next steps for achieving the goals of the plan. Action plans may vary in complexity, but at a minimum they should contain specific tasks, assign responsibility for completing the tasks, include a timeline and identify the costs and funding sources. Periodic updates to the action plan will allow for new opportunities to be added. An example of an action plan is below. *(Note: This is not an actual plan and is for illustrative purposes only.)*

Table 2: Sample Action Plan

Task	Responsible Party	Timeline	Budget	Comments
Access Goal				
1. Add five public access computers stations	Library	Year 1	$10,000	Apply for grant to fund
2. Continue hot spot lending program	Library/MSL	On-going	$2,000 - $8,000	Depending on funding from state
Skills Goal				
1. Staff training on cybersecurity	Library – On-line training	Year 1	$3,000	Training Budget
2. Digital navigator program	Library	Year 2 - 3	TBD	Additional study on costs/staffing
Workforce Development Boal				
Provide technical support for on-line job searches	Partner with Montana Job Service	Immediate	In-kind costs for staff time	Dept. of Labor & Industry

The action plan should be customized to fit the needs of the organization. It may include supporting materials such as budgets and partnership agreements. Funding sources can be indicated in a separate column or included as part of the comment section. Funding resources may include:
- General operating funds
- Grants
- In-kind
- Fundraising
- Partner contributions
- Foundation funds
- State – Federal funding

APPENDIX A: RESOURCES
Digital Equity Planning Resources
National Telecommunications and Information Administration – Internet for All,
https://broadbandusa.ntia.doc.gov/sites/default/files/2022-09/Asset_Mapping_Guide.pdf

https://broadbandusa.ntia.doc.gov/sites/default/files/2022-09/Digital_Equity_Plan_Guidance.pdf

https://broadbandusa.ntia.doc.gov/sites/default/files/2023-03/How_to_Engage_with_Libraries_for_SBOs.pdf

U.S. Department of Education, Office of Educational Technology "Advancing Digital Equity for All: Community-Based Recommendations for Developing Effective Digital Equity Plans to Close the Digital Divide and Enable Technology-Empowered Learning", 2022   http://tech.ed.gov

Institute of Museums and Libraries Services
https://www.imls.gov/sites/default/files/publications/documents/buildingdigitalcommunitiesframework.pdf

Montana Broadband Office- ConnectMT, "Digital Opportunity Plan",
https://connectmt.mt.gov/2023.06.27_Digital-Opportunity-Plan_WEB.pdf

New York State Library, https://www.nysl.nysed.gov/libdev/Digital-Inclusion-Toolkit.pdf

National Digital Inclusion Alliance, https://www.digitalinclusion.org/ & https://startup.digitalinclusion.org/

NDIA's Asset Mapping Tool, https://www.digitalinclusion.org/asset-mapping/

Michigan Sate University, Digital-Opportunites-Compass-Paper-20220223.pdf (msu.edu)

Toward Gigabit Libraries Toolkit
https://internet2.edu/community/community-anchor-program/cap-library-resources/toward-gigabit-libraries/

Data Resources

U.S. Census data, https://www.census.gov/data.html

Federal Communications Commission, National Broadband Map, https://broadbandmap.fcc.gov/home

Montana Census Economic and Information Center https://ceic.mt.gov/People-and-Housing/Community-Profiles

Mapping health care deserts - https://www.goodrx.com/healthcare-access/research/healthcare-deserts-80-percent-of-country-lacks-adequate-healthcare-access

Data from health resources and services administration - https://data.hrsa.gov/maps/map-gallery

North Carolina Digital Inclusion Guide - https://www.ncbroadband.gov/documents/resources/digital-inclusion-plan-template-guide-pdf/download

Digital Literacy Resources

National Digital Inclusion Alliance, https://www.digitalinclusion.org/wp-content/uploads/2021/09/Digital-Navigators-Toolkit-Final.pdf

Montana State Library, YouTube videos - https://www.youtube.com/@montanastatelibrary

Funding

U.S. Infrastructure Investment and Jobs Act, "Digital Equity Act" (DEA) & "Broadband Equity, Access and Deployment Program" (BEAD) https://www.internetforall.gov/

National Telecommunication and Information Administration (NTIA), https://broadbandusa.ntia.gov/
ConnectMT - State of Montana Broadband Program, https://connectmt.mt.gov/

Institute of Museums and Library Services, https://www.imls.gov/

Federal Communications Commission, Affordable Connectivity Program, https://www.fcc.gov/acp

Penguin Random House Grants for Small and Rural Libraries – www.arsl.ort/prhgrant

AARP – Community Grants - https://states.aarp.org/montana/community-grants-now-open

Montana Community Development Block Grant – Planning Grants (Funds for Preliminary Architectural Reports to design accessible public access computer stations, accessible training/meeting spaces ….) https://comdev.mt.gov/Programs-and-Boards/Community-Development-Block-Grant-Program/Planning-Activities

Montana Disaster and Emergency Services - https://des.mt.gov/Grant-Programs/BRIC-Program

Blue Cross and Blue Shield of Montana - https://www.bcbsmt.com/company-info/communityinvolvement/community-giving

Town Pump Foundation - https://www.townpumpfoundation.com/grants

Digital Literacy Grants - https://www.wishyouwellfoundation.org/apply-for-funding

Montana Community Foundation - https://mtcf.org/grants/apply-for-a-grant

Local Community Foundations - https://mtcf.org/about/about-us/local-community-foundations

USDA Community Facilities Grant Grants and loans for capital improvements for rural libraries. https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grantprogram

AmeriCorp - https://americorps.gov/about/what-we-do/economic-opportunity

Rural Telehealth Funding Resources - https://www.ruralhealthinfo.org/toolkits/telehealth/6/grant-funding

Rural electric and rural telephone cooperatives community grants

APPENDIX B: SAMPLE SURVEY QUESTIONS

The National Telecommunications and Information Administration has a variety of resources for libraries and communities that are undertaking digital equity efforts.   It recommends conducting surveys to compile quantitative data that can be analyzed and used to establish a baseline. Libraries can choose from some of the sample survey questions below. It might also be helpful to ask specific questions about library services.

1. Do you use the Internet?
   a. Yes
   b. No

2. Do you use the Internet on a daily basis?
   a. Yes
   b. No

3. Have you ever been charged extra for going over your data limit for Internet Service?
   a. Yes
   b. No

4. Are you interested in taking classes online to learn new skills?
   a. Yes
   b. No

5. Have you or someone you know ever been a victim of an online scam?
   a. Yes
   b. No

6. Do you know where you can go to find technical support for your personal devices when needed?
   a. Yes
   b. No

7. Do you think the cost of Internet is too high for you?
   a. Yes
   b. No

8. In what ways do you use Internet service that are relevant to your life. (Select all that apply.)
   a. Education
   b. Work
   c. Entertainment
   d. Communicating with family and friends
   e. Telehealth
   f. Other (Please specify):

9. How much does your household pay per month for Internet service?
   a. I do not pay for Internet service
   b. Less than or equal to $30 per month
   c. Between $30/month and $50 /month
   d. Between $50/month and $70/month
   e. $70/month or more
   f. Cost is bundled with cable or cell phone service
   g. Don't know

10. What public spaces are you aware of that provide free access to the Internet?
    a. Public library
    b. Community center
    c. High school
    d. Other (please list)

11. Which of the following skills do you hope to gain from learning how to access the Internet? (Select all that apply.)
    a. How to communicate with family and friends
    b. How to find a job online
    c. How to watch videos
    d. How to find information about public resources and events
    e. Other (please list)

12. On a scale of 1-5, how would you rate your ability to detect suspicious behavior on-line?

    Unable to Detect   Able to Detect
       1   2   3   4   5

12. What kind of devices do you regularly have access to:
    a. Laptop
    b. Desktop Computer
    c. Smartphone
    d. Tablet

13.   What challenges do you have to access or use the Internet?

14. Please indicate if you associate with any of the following groups. (Check all that apply)
    a. Senior Citizen
    b. Veteran
    c. Individual with a disability
    d. Individual with a language barrier
    e. Racial or ethnic minority
    f. Resides in rural area

Source: NTIA, "Internet for All", Internetforall.gov

APPENDIX C: DIGITAL EQUITY INVENTORY CHECKLIST

Program/Service/Offering	Description (Current & Planned)
Technology	
Public Access Computers	# of computers: Usage Data:
Free Wi-Fi for patrons	Usage Data:
Staff computers & wide area network	# of computers: Recent upgrades of router, wiring:
Broadband Connection	Provider: Download/Upload Speeds: Connection type: (Fiber, DSL, Wireless…): Participate in E-rate:
Other	
Programs	Description:
Hot-spot Lending Program	
Technology Petting Zoo	
Digital device lending program (tablets, laptops…)	
Digital Navigator – Technical support	
Other:	
Facilities	
Adequate Space for public computers	
Community meeting space with audio/visual/Internet technology	
Adequate space for staff to offer tech support	
Private rooms for distant learning or telehealth.	
Back-up generator (for emergencies operations…)	
Maker Space (3-D printers, scanners, video recording ….)	
Other:	

DIGITAL SKILLS	
Digital literacy classes	
Cybersecurity audits – policies	
Technology training for staff	
Software subscriptions	
Assist with on-line job search	
Other	
ON-LINE – DIGITAL CONTENT	
Community information/links (Government, job info, tribal govt. …)	
Information on affordable Internet options	Lifeline FCC Affordable Connect Program Local Internet Provider programs?
Emergency Services	
E-books, Montana Library2Go, Talking book services	
Other	
PARTNERSHIPS	
Employment -Workforce agencies	
Health, Social services	
Education	
Government agencies, emergency services	
Internet providers	
Other	

APPENDIX D: U.S. DEPT. OF EDUCATION BARRIERS & STRATEGIES

	Availability	Affordability	Adoption
Barriers	• Lack of continuous internet and device availability for highly mobile learners • Lack of large-scale infrastructure due to digital redlining • Lack of reliable, high-speed broadband connection • Limitations of building-level infrastructure • Limited or lack of ownership of personal devices capable of running learning programs	• High cost of broadband and technology tools for learning • Lack of sustained funding for affordable internet programs	• Distrust between communities and government and/or private companies • Lack of access to technical support for learners and families/caregivers • Lack of collaboration between government agencies, community-based organizations, Tribes, and private companies • Lack of community buy-in due to the exclusion of communities most impacted by the digital divide from conversations about digital equity • Lack of inclusive strategies for communicating with families/caregivers • Lack of reliable, disaggregated data to guide investments in targeted communications and supports • Lack of resources and support in learners' and families'/caregivers' home languages • Lack of support to complete applications for affordable broadband programs • Limited access to digital literacy skills training for caregivers/families, learners, and educators • Limited access to professional learning for educators • Limited institution- and organization-level capacity
Strategies	• Distribution of hotspots and devices to learners and educators • Partnerships with internet service providers (ISPs) to increase equitable infrastructure • Use of public spaces and community partnerships to establish internet access	• Community partnerships with ISPs to lower costs • Ongoing federal, state or territory, and local funding for districts to purchase equipment and fund affordable internet and digital literacy programs • Programs offering subsidies to learners and families/caregivers	• Co-creation of solutions with community members and community-based organizations • Digital literacy opportunities for learners, families/caregivers, and educators • Multilingual technical support for learners and families/caregivers • Provision of human-level support through partnerships with community-based organizations and/or trusted advocates rooted in communities • Regular conversations soliciting feedback and needs from learners and families/caregivers

Source: U.S. Department of Education, http://tech.ed.gov

Appendix : Data Profiles

U.S. Census Population and Household Data
https://www.census.gov/quickfacts/fact/table/US/PST045222

Population Estimates, July 1, 2022, (V2022)	1,122,878
PEOPLE	
Population	
Population estimates, July 1, 2023, (V2023)	1,132,812
Population Estimates, July 1, 2022, (V2022)	1,122,878
Population estimates base, April 1, 2020, (V2023)	1,084,244
Population estimates base, April 1, 2020, (V2022)	1,084,244
Population, percent change - April 1, 2020 (estimates base) to July 1, 2023, (V2023)	4.5%
Population, percent change - April 1, 2020 (estimates base) to July 1, 2022, (V2022)	3.6%
Population, Census, April 1, 2020	1,084,225
Population, Census, April 1, 2010	989,415
Age and Sex	
Persons under 5 years, percent	5.1%
Persons under 18 years, percent	20.8%
Persons 65 years and over, percent	20.0%
Female persons, percent	49.3%
Race and Hispanic Origin	
White alone, percent	88.7%
Black or African American alone, percent (a)	0.6%
American Indian and Alaska Native alone, percent (a)	6.5%
Asian alone, percent (a)	1.1%
Native Hawaiian and Other Pacific Islander alone, percent (a)	0.1%
Two or More Races, percent	3.0%
Hispanic or Latino, percent (b)	4.5%
White alone, not Hispanic or Latino, percent	85.3%

U.S.Census Computer and Internet Usage Data
https://data.census.gov/table (ACS Table S2801)

Types of Computers and Internet Subscriptions

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

Label	Montana Total Estimate
∨ Total households	464,072
∨ TYPES OF COMPUTER	
∨ Has one or more types of computing devices:	439,192
∨ Desktop or laptop	373,588
Desktop or laptop with no other type of computing device	16,594
∨ Smartphone	411,149
Smartphone with no other type of computing device	42,445
∨ Tablet or other portable wireless computer	272,308
Tablet or other portable wireless computer with no other type of computing device	3,740
∨ Other computer	8,979
Other computer with no other type of computing device	252
No computer	24,880
∨ TYPE OF INTERNET SUBSCRIPTIONS	
∨ With an Internet subscription:	414,800
Dial-up with no other type of Internet subscription	979
∨ Broadband of any type	413,821
∨ Cellular data plan	371,785
Cellular data plan with no other type of Internet subscription	52,202

Montana Site Selector – Electronics and Internet Marketing Data

https://svc.mt.gov/doc/siteselector/

Choose MONTANA SITE SELECTOR

Electronics and Internet Market Potential

Yellowstone County, MT (30111)
Yellowstone County, MT (30111)
Geography: County

Demographic Summary	2023	2028
Population	170,389	175,420
Population 18+	133,292	137,738
Households	70,196	72,702
Median Household Income	$72,330	$80,587

Product/Consumer Behavior	Expected Number of Adults or	Percent	MPI
Own Tablet	78,270	58.7%	100
Own E-Reader	19,964	15.0%	104
Own E-Reader/Tablet: Amazon Fire	20,011	15.0%	106
Own E-Reader/Tablet: Amazon Kindle	32,951	24.7%	105
Own E-Reader/Tablet: Apple iPad	48,926	36.7%	98
Own E-Reader/Tablet: Barnes & Noble Nook	3,358	2.5%	113
Own E-Reader/Tablet: Microsoft Surface	3,669	2.8%	96
Own E-Reader/Tablet: Samsung Galaxy Tab	14,844	11.1%	99
Own Portable MP3 Player	15,230	11.4%	102
Own Apple Watch Wearable Technology	20,894	15.7%	95
Own Fitbit Wearable Technology	21,049	15.8%	103
Own Garmin Wearable Technology	4,921	3.7%	111
Own Digital Camcorder	10,780	8.1%	100
Own Digital Point and Shoot Camera/Camcorder	16,246	12.2%	111
Own Digital SLR Camera or Camcorder	14,789	11.1%	103
Own 35mm Camera or Camcorder	10,056	7.5%	106
Own Telephoto/Zoom Lens for Camera	9,220	6.9%	107
Own Wide Angle Lens for Camera	6,758	5.1%	105
Own Selfie Stick for Camera or Phone	8,788	6.6%	100
Printed Digital Photos/12 Mo	38,242	28.7%	106
Use Computer at Work	58,244	43.7%	101
Use Desktop Computer at Work	26,681	20.0%	103
Use Laptop or Notebook Computer at Work	32,926	24.7%	102
HH Owns Computer	60,289	85.9%	100
HH Purchased Most Recent Home Computer/12 Mo	10,072	14.3%	101
HH Owns Desktop Computer	29,049	41.4%	103
HH Owns Laptop or Notebook	48,771	69.5%	99
HH Has Child (<18 Yrs) Using Home Computer	7,754	11.0%	94
HH Owns Apple/Mac Brand Computer	15,445	22.0%	91
HH Owns PC/Non-Apple Brand Computer	51,036	72.7%	102
HH Purchased 1-2 Yrs Ago Most Recent Computer	13,251	18.9%	99
HH Purchased 3-4 Yrs Ago Most Recent Computer	14,022	20.0%	104
HH Purchased 5+ Yrs Ago Most Recent Computer	13,032	18.6%	105
HH Purchased Most Recent Home Computer at Store	27,939	39.8%	102
HH Purchased Most Recent Home Computer Online	19,573	27.9%	102
HH Spent $1-499 on Most Recent Home Computer	11,798	16.8%	106
HH Spent $500-999 on Most Recent Home Computer	15,325	21.8%	107
HH Spent $1K-1499 on Most Recent Home Computer	8,484	12.1%	100
HH Spent $1500-1999 on Most Recent Home Computer	2,890	4.1%	89
HH Spent $2K+ on Most Recent Home Computer	3,664	5.2%	97
HH Owns Webcam	18,220	26.0%	99

Appendix : Glossary

NTIA – Digital Equity Act Definitions

Aging Individual—An individual who is 60 years of age or older.

Commission— Refers to the Federal Communications Commission.

Community Anchor Institution— A public school, a public or multi-family housing authority, a library, a medical or healthcare provider, a community college or other institution of higher education, a State library agency, and any other nonprofit or governmental community support organization.

Covered Household— A household, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census.

Covered Populations—The term "covered populations" means:
1. Individuals who live in covered households;
2. Aging individuals;
3. Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility;
4. Veterans;
5. Individuals with disabilities;
6. Individuals with a language barrier, including individuals who—
a. Are English learners; and
b. Have low levels of literacy;
7. Individuals who are members of a racial or ethnic minority group; and
8. Individuals who primarily reside in a rural area.

Digital Equity— The condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States.

Digital Inclusion -
1. the activities that are necessary to ensure that all individuals in the United States have access to, and the use of, affordable information and communication technologies, such as—
a. Reliable fixed and wireless broadband internet service;
b. Internet-enabled devices that meet the needs of the user; and
c. Applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration; and
2. Includes—
a. Obtaining access to digital literacy training;
b. The provision of quality technical support; and
c. Obtaining basic awareness of measures to ensure online privacy and cybersecurity.

Digital Literacy— The skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information.

(k) Disability— With respect to an individual—
1. A physical or mental impairment that substantially limits one or more major life activities of such individual;
2. A record of such an impairment; or
3. Being regarded as having such an impairment.