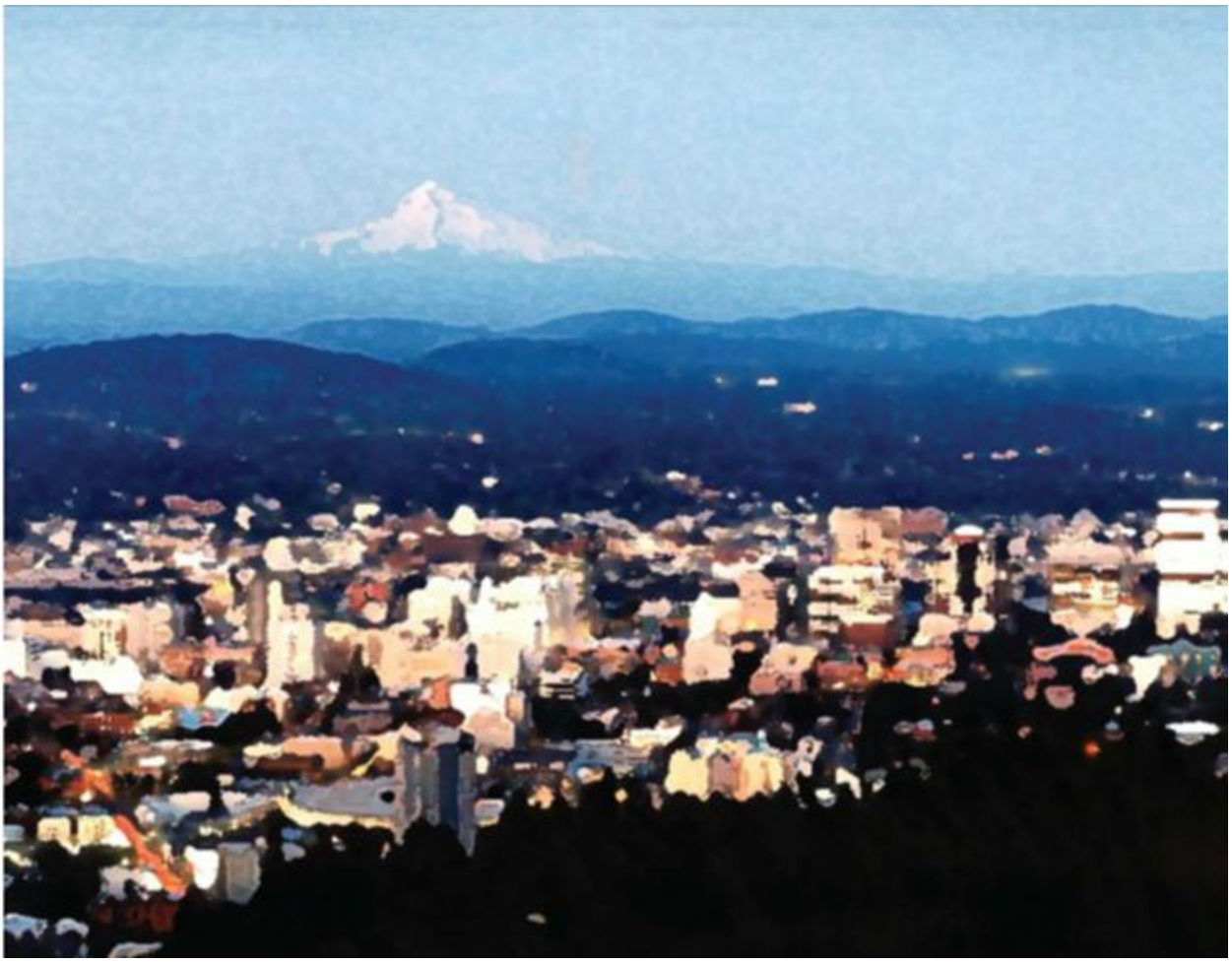
DIGITAL EQUITY ACTION PLAN



APRIL 2016

DIGITAL INCLUSION NETWORK

City of Portland

Office for

Community Technology

- Broadband & Communications Policy
- Cable Regulation & Consumer Protection
- Utility Franchises, Licenses & Wireless

The CITY OF PORTLAND Oregon

Multnomah County

MULTNOMAH COUNTY

LIBRARY

150

Document purpose

This Digital Equity Action Plan (DEAP) encapsulates the work of the Digital Inclusion Network since fall of 2014. The plan outlines a series of operational and policy proposals for public and private agencies, along with nonprofits, in Portland/Multnomah County to advance the cause of digital equity.

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Mission Statement

To bridge the digital divide for excluded members of our community with affordable access, training and tools.

Vision Statement

All residents of Portland/Multnomah County will have barrier-free access to high-speed broadband Internet at home and school, an affordable computing device and the training to use them effectively.

Executive Summary

What is Digital Equity?

In 2016, many of us take our access to high-speed Internet and our use of digital tools for granted. We have a computer on our desks at work, a smartphone in our hands and a laptop or tablet in our briefcase or backpack. We grumble about the price, but we expect and pay for speedy broadband Internet connections that make it possible to work online efficiently and effectively.

But what if you couldn't afford or didn't know how to use your device and your high-speed Internet connection? How would you apply for a job, find housing, get financial aid for college, communicate with your doctor or your child's school, do your homework or file your tax return? Too many people in our community are still excluded by poverty, language barriers, disability and a lack of training from the digital world the rest of us now inhabit.

Digital equity encompasses access to high-speed Internet as well as 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.[1] The National Digital Inclusion Alliance defines digital equity as everyone having "daily access to the Internet, at speeds, quality and capacity necessary to accomplish common tasks, with digital skills necessary to fully participate online, and whenever possible on a personal device and home network." [2]

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.[4]

Why Create a Digital Equity Action Plan?

This digital equity action plan targets access and adoption gaps for excluded and disadvantaged communities, specifically those with low incomes, older adults, communities of color, people with disabilities and those with limited English proficiency.

"Affordable, reliable access to high-speed broadband is critical to U.S. economic growth and competitiveness. High-speed broadband enables Americans to use the Internet in new ways, expands access to health services and education, increases the productivity of businesses, and drives innovation throughout the digital ecosystem." -President Barack Obama, March 23, 2015 [3]

An estimated 15 percent of Portland-area households do not have Internet access at home.[5] The primary reason is cost, with lack of devices and training trailing close behind. People of color, recent immigrant communities, older adults, people with disabilities and those with low incomes are disproportionately likely to lack broadband Internet access and the skills and tools to use it effectively. Those who lack Internet access, tools and skills fall behind in educational achievement and health outcomes, and will likely remain or become marginalized from full participation in society. Individuals without Internet at home and digital skills are at a disadvantage when it comes to accessing economic opportunity.[6]

Local research findings gathered through five focus groups confirm extensive national research: The cost of broadband Internet and the devices needed to use it, as well as the scarcity of culturally specific training, are barriers to meaningful Internet adoption for marginalized groups.[7]

Action Agenda

More than 48 organizational partners from community non-profits, government, business, public schools, higher education and media came together to develop the Digital Equity Action Plan, with funding and leadership from the City of Portland Office for Community Technology, Multnomah County Library and Multnomah County Department of County Assets.

The Plan identifies 17 action items and lead organizations across the five Digital Equity Goals listed in the table below: Access, Training/Support, Leadership/Capacity Building, Connectivity to the Digital Economy and Policy. Implementation plans will establish benchmarks against which to measure progress toward these goals. Benchmark data will come from the 2014 Portland-Area Broadband Adoption Survey [8], which asked residents about their technology and Internet usage, as well as forthcoming data from the 2015 Computer and Internet Use Supplement to the Census Bureau's Current Population Survey [9].

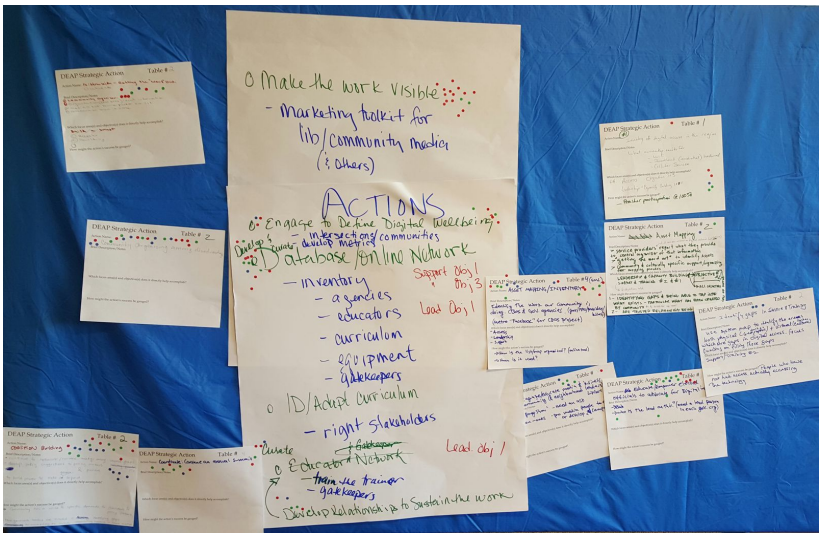
Digital Equity Goal	***Need***
Access *Ensure access to affordable high-speed Internet and devices for those in need.*	*15 percent of households don't have Internet at home citing cost as a barrier. 10% of adults do not use the Internet at all (2014 Portland-Area Broadband Adoption Survey).*
Training/Support *Provide training and support to ensure that everyone has the skills to use digital technology to enhance their quality of life.*	*42 percent of non-users would need someone to help them to get online (2014 Portland-Area Broadband Adoption Survey).*
Leadership/Capacity Building *Empower community partners to bridge the digital divide through funding, coordination, training and staff resources.*	*Valuable programs to address digital equity can be found in the region but no overall strategy exists.*
Connectivity to the Digital Economy *Create opportunities for jobs in the digital economy for underserved populations.*	*Communities of color and women are underrepresented in the technology industry.*
Policy *Build a policy framework that supports digital equity and meaningful Internet adoption, leading to better community outcomes.*	*Policy is an effective tool to address inequities.*

The Digital Inclusion Network (DIN), a community coalition formed around these goals, and our community partners are working together to achieve the vision of opportunity for every Portland/Multnomah County resident to be fully engaged in our digital society.

DIN members identified objectives and strategic actions for each of these goals during the community planning process, as described below. DIN members are also currently developing implementation and evaluation plans involving partner organizations throughout the community. The DIN will present annual progress reports to monitor the status of specific initiatives and will continue to play a key role in implementing the plan and monitoring its success.

The Planning Process

The DEAP community engagement process began with five focus groups for historically underrepresented populations (Spanish, Chinese and Vietnamese speakers, people with hearing disabilities and African-Americans) in the summer of 2015. The focus group findings confirmed data from national sources about barriers to Internet adoption and use — cost of home broadband, availability of affordable devices and absence or scarcity of culturally specific training are all barriers to Internet adoption.[10] Other commonly mentioned local barriers included low-speed service in some areas, mistrust of service providers, lack of understanding of contract language and limited application of closed captioning for those with hearing disabilities. Community members with other disabilities — vision, mobility, etc. — were not present at this focus group, but workshop participants cited additional barriers



they experience, including the need for adaptive software and devices, scarcity of specialized training and web interfaces that are poorly designed for their use.

Three workshops held in the fall of 2015 brought together a broad cross-section of community organizations from nonprofit, education, tech industry, affordable housing, business and local government. Workshop participants' ideas and dedicated engagement in the planning process generated the community-based actions at the heart of this plan. Participants worked collaboratively to establish goals, set objectives and identify priority actions for the next three years. Partnership opportunities emerged and organizations coalesced around specific actions.

Goals, Objectives and Strategic Actions

Goal 1			
Access: *Ensure access to affordable high-speed Internet and devices for those in need.*			
Objectives ● Wi-Fi universally available in public places throughout Multnomah County. ● Devices available to all in need. ● Affordable broadband Internet access (25 Megabit symmetrical or greater) available at home to those in need. ● Public and private organizations repurpose devices for use by community.			
Strategic Actions		**Lead**	**Supporting Partners**
1.1	Leverage the network shared by public institutions to extend free Wi-Fi service into low-income neighborhoods.	Mt. Hood Cable Regulatory Commission	Multnomah County Library, City of Gresham, Parkrose School District, Portland Public School District, MESD, Home Forward, City of Portland
1.2	Leverage city/county assets and regulatory authority to incent broadband providers to expand low-cost Internet access.	Portland Office for Community Technology, Multnomah County	City of Gresham, Citizens Utility Board
1.3	Create (or locate) web-based inventory of broadband service options (searchable by address) that identifies lowest-cost options for residents.	Portland Office for Community Technology, Hack Oregon	Citizens Utility Board, Digital Inclusion Network participating organizations

1.4	Expand participation of business, government and residents in computer recycling programs that repurpose devices for use by low-income residents.	Portland Office for Community Technology	Free Geek, Portland Public School District
1.5	Design and implement an affordable housing digital equity pilot project.	Portland Housing Bureau, Home Forward	Human Solutions
1.6	Design and implement a digital equity pilot project for the homeless community	Multnomah County Library, Multnomah County	Street Roots

Goal 2

Support and training: *Provide training and support to ensure that everyone has the skills to use digital technology to enhance their quality of life.*

Objectives

- Coordinated plan to deliver basic digital literacy training countywide that builds on the strengths of the partners and serves their target audiences.
- Each partner has ongoing funding and support mechanisms to provide digital literacy training and support.
- Digital literacy trainings include information about online safety, privacy and how to understand broadband contract language and terms.
- Define/develop measures of improved access and inclusion for underserved populations.

Strategic Actions		Lead	Supporting Partners
2.1	Create and maintain a searchable, web-based database of digital inclusion programs, services, activities and training tools for use by community organizations.	Multnomah County Library	Digital Inclusion Network participating organizations, Technology Association of Oregon, Multnomah County, League of Minority Voters
2.2	Compile connectivity data at Affordable Housing units.	Portland Housing Bureau, Home Forward	Human Solutions

2.3	Expand availability of culturally specific digital literacy curriculum.	Multnomah County Library	Portland Community Media, MetroEast Community Media, Portland State University, Concordia University, Free Geek, The Skanner Foundation, North Portland Multimedia Training Center

Goal 3

Leadership and capacity building: *Empower community partners to bridge the digital divide through funding, coordination, training and staff resources.*

Objectives

- Expand the Digital Inclusion Network, a coalition of community partners, to lead efforts of collective action on digital equity.
- Provide resources to sustain the community partners' network through convening regular meetings and summits for collaboration.
- Build capacity of organizations to implement community-driven solutions that address the digital equity gap.

Strategic Actions		Lead	Supporting Partners
3.1	Strengthen the Digital Inclusion Network (DIN) as a diverse, countywide, community-based work group to guide, advocate for and support DEAP implementation.	Portland Office for Community Technology, Multnomah County Library, City of Gresham, Mt. Hood Cable Regulatory Commission	Digital Inclusion Network participating organizations
3.2	Convene an annual digital inclusion summit to provide an update on DEAP implementation, share learnings, network and recognize good work.	Portland Office for Community Technology, Mt. Hood Cable Regulatory Commission, Multnomah County	Digital Inclusion Network participating organizations

		Library, City of Gresham	
3.3	Expand public and private funding for digital equity focused projects.	Portland Office for Community Technology, Multnomah County, Mt. Hood Cable Regulatory Commission	Digital Inclusion Network participating organizations

Goal 4

Connecting to the digital economy: *Create opportunities for jobs in the digital economy for underserved populations.*

Objectives

- Increase numbers of people from underrepresented populations in the technology economy.
- Underserved communities have a voice/influence in technology design/deployment.

Strategic Actions		Lead	Supporting Partners
4.1	Support initiatives to assist people from underrepresented populations to prepare for, find and create jobs in the technology economy.	Portland Office for Community Technology, Multnomah County Library, City of Gresham	Technology Association of Oregon, Worksystems, Code Oregon, educational organizations
4.2	Support STEAM initiatives for K–12 students.	School districts, Multnomah County Library	iUrban Teen, School Districts, Hive Cascadia

Goal 5

Policy: *Build a policy framework that supports digital equity and meaningful Internet adoption, leading to better community outcomes.*

Objectives

- Elected officials advocate for digital equity and support community-centered and delivered solutions.
- Local governments' online engagement tools are accessible to people with disabilities and language barriers.
- Statewide legislation mandates transparency and clarity in broadband contract language.

Strategic Actions		Lead	Supporting Partners
5.1	Develop a strategy for funding Internet services, devices and training in affordable housing projects.	Home Forward, Portland Housing Bureau	Human Solutions, Free Geek
5.2	Engage business, community, neighborhood and government leaders to take action on DEAP implementation.	Digital Inclusion Network participating organizations	Digital Inclusion Network participating organizations
5.3	Develop a digital equity lens for public officials to use when updating or creating public policy.	Portland Office for Community Technology, Multnomah County, Multnomah County Library	Digital Inclusion Network participating organizations

Valuable Programs and Successful Strategies

Residents of Portland/Multnomah County already benefit from some notable programs (summarized below) targeting barriers to digital equity. The Digital Equity Action Plan provides a framework to unite the efforts of existing programs and build new initiatives under a focused, evidence-based strategy for cooperative effort. To achieve digital equity in our community, we must sustain and expand funding and support for these successful efforts and for new initiatives that engage an expanded coalition of community partners, government agencies, businesses and educational institutions in reaching digital equity goals.

Type of Program	Value
Digital literacy	Low-income residents and those who lack a device, Internet access or English language proficiency have few options for affordable digital literacy training. Public libraries have worked to fill this gap since the mid-1990s. Multnomah County Library offers public classes, trainer-staffed computer labs and one-on-one coaching sessions to build digital literacy skills, including online safety, use of software and devices. This support is offered in English, Spanish, Russian, Chinese and Vietnamese. The library offers public computers and high-speed public Wi-Fi access in 19 locations.
Technology grants	Local technology-focused funding fills an area of need not well addressed by other funding sources. Many community organizations and schools find it difficult to fund transitions to new programs that provide digital equity services. Grant programs like the Mt. Hood Cable Regulatory Commission Community Grants

	program help nonprofits, libraries and schools build capacity to provide diverse populations with access to technology at locations and from agencies that are trusted and convenient.
No-to- Low-cost refurbished devices	Lack of access to affordable devices is one of the key barriers to achieving digital equity. Programs offered through Free Geek, a local nonprofit organization, and “Plug into Portland,” a similar program for K–12 students, allow participants to exchange volunteer time for a free computer. Free Geek also offers low-cost computers through its thrift store. All computers distributed are warrantied and come with ongoing technical support and digital literacy training.
Free and low-cost Internet access	Cost continues to be a major barrier to broadband adoption. Free or low-cost broadband access is key to helping low-income residents in the region get online. Low-cost programs such as Comcast’s Internet Essentials and CenturyLink’s Internet Basics packages exist in our community but are significantly underutilized. This plan envisions improvements to access, promotion and availability of such programs.
Media training capturing local voices	Marginalized communities often lack access to the media, and little culturally specific programming is available for them. Portland Community Media and MetroEast Community Media offer culturally appropriate multimedia training to empower local voices among underserved groups. These skill- and capacity-building programs are essential to prepare individuals from marginalized groups for school, jobs and participation in community life.

Conclusion

Achieving digital equity for all residents of Portland/Multnomah County will require a concerted effort by government and business; community based organizations; school districts and higher education organizations and individual citizens who are committed to the goals of the Digital Equity Action Plan. The Digital Inclusion Network has led the work on the Digital Equity Action Plan up to this point and will continue to provide leadership and structure to these efforts.

To achieve our vision of affordable broadband access, devices and training for all residents of Portland/Multnomah County, DIN members and community partners are committed to taking the next steps outlined below.

Next Steps

Share the Plan

The Digital Inclusion Network will share the Digital Equity Action Plan broadly with organizations, agencies and individuals that participated in the planning process and encourage adoption and support by the governing bodies of community-based organizations, school districts, higher education institutions and businesses throughout the county.

Complete Implementation Planning

Many organizations that participated in the development of the Digital Equity Action Plan have volunteered to develop implementation plans and lead individual strategic initiatives, as indicated in the table above. Implementation planning will extend into the summer of 2016.

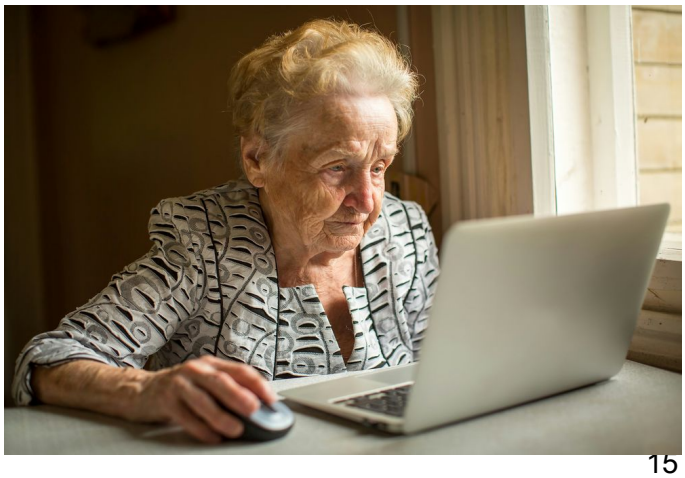
Take Action
The DIN anticipates a three-year implementation cycle from July 1, 2016, through June 30, 2019. Implementation plans will be based on these dates. During year three, based on progress and success measures up to that point, planning for the next three-year cycle will take place.

Measure Success
The Portland Office for Community Technology, Multnomah County Library and Multnomah County's Department of County Assets will take the lead to develop and adopt outcome measurements to evaluate this digital equity work. In doing so, the group will base initial benchmarks on data from the 2014 Portland Area Broadband Adoption Survey. We also expect to build on a framework in development by the National Telecommunications and Information Administration, U.S. Dept. of Commerce (NTIA). User testing on this framework is set to begin in April-May 2016, with an online assessment and evaluation tool available nationwide in 2017. Communities engaged in digital inclusion work across the United States will contribute to the development of this evaluation tool.

Also, later this year we will have access to new data from NTIA's latest Computer and Internet Use Supplement to the Current Population Survey. In July 2015, NTIA commissioned the United States Census Bureau to conduct this updated survey. The data is currently being analyzed and prepared for distribution. NTIA uses this survey to help understand why, where and how Americans use the Internet, as well as what barriers stand in the way of effective Internet use. This new data will be very useful in developing success measures for the Digital Equity Action Plan.

Report Back
The Digital Inclusion Network will prepare an annual status report on accomplishments, successes and work yet to be done to achieve digital equity for Multnomah County residents. The DIN will also sponsor an annual Digital Inclusion Summit, bringing together community partners to assess progress, celebrate successes, acknowledge and disseminate best practices and renew commitment to addressing digital equity gaps and achieving the vision and goals of the Digital Equity Action Plan.

Participate!
Success of the Digital Equity Action Plan requires participation by a diverse countywide team of organizations and individuals committed to these goals. Please become involved by joining the



Digital Inclusion Network by emailing kimberly.whelan@portlandoregon.gov or calling 503-823-2005.

Endnotes

[1]http://www.brookings.edu/research/reports2/2015/12/07-broadband-adoption-rates-metropolitan-areas-tomer-kane

[2] http://www.digitalinclusionalliance.org/

[3] "Presidential Memorandum-Expanding Broadband Deployment and Adoption by Addressing Regulatory Barriers and Encouraging Investment and Training," White House Office of the Press Secretary, March 23, 2015, https://www.whitehouse.gov/the-press-office/2015/03/23/presidential-memorandum-expanding-broadband-deployment-and-adoption-addr

[4]http://www.brookings.edu/research/reports2/2015/12/07-broadband-adoption-rates-metropolitan-areas-tomer-kane

[5] https://www.portlandoregon.gov/revenue/article/504164

[6]http://www.brookings.edu/research/reports2/2015/12/07-broadband-adoption-rates-metropolitan-areas-tomer-kane

[7] https://www.portlandoregon.gov/revenue/index.cfm?&a=545834

[8] https://www.portlandoregon.gov/revenue/article/504164

[9] https://www.ntia.doc.gov/blog/2016/data-preview-what-s-new-july-2015-cps-computer-and-internet-use-supplement

[10] https://www.portlandoregon.gov/revenue/article/504164

Appendix

1. **Acknowledgment and Appreciation of Participants and Process**

   Digital Inclusion Network partners hosted a Digital Inclusion Summit in November of 2014. Eighty-seven attendees discussed steps our community could take to address the digital divide. The City of Portland and Multnomah County Library funded the planning process to develop the Digital Equity Action Plan. The City of Gresham and Multnomah County Department of County Assets joined the collaboration to guide the planning process.

   JLA Public Involvement assisted the city, county and library district in conducting a community-based strategic action planning approach to furthering countywide digital equity. JLA Public Involvement conducted five focus groups to support the plan: Vietnamese and Chinese focus groups on June 24, 2015; a Spanish focus group on June 25, 2015; a Deaf/Hard of Hearing and Disabilities focus group on June 26, 2015; and an African-American focus group on August 19, 2015. Focus group outcomes are noted within the *2015 Digital Inclusion Needs & Opportunities Report* (Page 19, #2).

   Following the focus groups, JLA Public Involvement conducted three workshops to develop the Digital Equity Action Plan. DIN invited over 85 participants from community based organizations, business, education and government to attend each workshop. JLA conducted workshops on October 2, 2015; November 6, 2015; and December 4, 2015, each for half-day sessions. The Digital Equity Action Plan is derived from the work of participants in these sessions.

   We would like to thank the following organizations for their involvement in the process. *Organizations denoted with an asterisk are those that make up the Digital Inclusion Network (DIN)*:

   Cable Works
   *Citizens Utility Board of Oregon (CUB)
   *City of Gresham
   City of Portland, City Attorney's Office
   City of Portland, Community & Neighborhood Involvement Center
   IRCO Asian Family Center (AFC)
   Latino Network
   LNS Captioning
   LogCamp
   *MetroEast Community Media
   *Mt. Hood Cable Regulatory Commission
   *Multnomah County Library
   Human Solutions

City of Portland, Disability Program
*City of Portland, Office for Community Technology
City of Portland, Office of Equity and Human Rights
Coalition of Gresham Neighborhood Associations
Comcast
Community Cycling Center
Concordia University
CUB Connects
Elders in Action
Fibersphere
Flossin Media
*Free Geek
Friends of the Children
Google Fiber
Hacienda CDC
*Home Forward
*Innovate Oregon*Multnomah County, Department of County Assets
New City Initiative
No. Portland Multimedia Training Center/The Skanner News Group
*NTEN Nonprofit Technology Network
Oregon League of Minority Voters
Parkrose School District
Personal Telco
*Portland Community College
*Portland Community Media (PCM)
*Portland Development Commission (PDC)
*Portland Public Schools
*Portland State University — LLTR
Reynolds School District
Rockwood CDC
Rosewood Initiative, The
Social Justice Fund
*Technology Association of Oregon

* Digital Inclusion Network Member

2. **2015 Digital Inclusion Needs and Opportunities Report**
   a. Prepared by JLA Public Involvement for City of Portland — Office for Community Technology and Multnomah County Library (August 24, 2015). Available at: https://www.portlandoregon.gov/revenue/article/545834

3. **Digital Equity References**
   a. Rhinesmith, Colin (January 8, 2015). Benton Foundation, *Study Finds Four Broadband Adoption Success Factors.* Available at: https://www.benton.org/headlines/study-finds-four-broadband-adoption-success-factors
   b. Horrigan, John B. and Duggan, Maeve (December 21, 2015). Pew Research Center, *Home Broadband 2015.* Available at: http://www.pewinternet.org/2015/12/21/home-broadband-2015/
   c. Tomer, Adie and Kane, Joseph (December 2015). Metropolitan Policy Program at The Brookings Institution, *Broadband Adoption Rates and Gaps in U.S. Metropolitan Areas.* Available at:

http://www.brookings.edu/research/reports2/2015/12/07-broadband-adoption-rates-metropolitan-areas-tomer-kane

d. City of Seattle (Progress Report, July 2015). *Digital Equity Initiative Action Plan: Phase One — Building the Foundation.* Available at: http://www.seattle.gov/Documents/Departments/Tech/SeaDigEq_Report_073015_FINAL.pdf

e. Lee, Jessica A. and Toner, Adie (October 2015). Metropolitan Policy Program at The Brookings Institution, *Building and Advancing Digital Skills to Support Seattle's Economic Future.* Available at: http://www.brookings.edu/research/reports/ 2015/10/ 23-seattle-digital-skills-lee-tomer

f. Online Digital Equity Resources:

Atomic Cleaning	www.atomiclearning.com; https://www.atomiclearning.com/training/computing-literacy-basics-training
BBC WebWise	http://www.bbc.co.uk/webwise/0/
Broadband Expert	Broadband Expert
BYTE BACK	www.byteback.org; http://byteback.org/typing/; http://byteback.org/students/espanol/recursos/
Community Technology Network	http://ctnbayarea.org/resources
Computer Hope	http://www.computerhope.com/
Connect New Mexico Broadband Program	http://nmconnect.org; http://nmconnect.org/resources-for-students/online-training/spanish-language/
Denver Library	https://www.denverlibrary.org/ctc-classes
Digital Learn	http://digitallearn.org/teach
Digital Literacy	http://www.digitalliteracy.gov
Digital Unite	http://digitalunite.com/
Dodge City Public Library	www.dcpl.info
Drive Your Digital Learning Hub	http://driveyourlearning.org/

EveryoneOn	www.everyoneon.org (attached are handouts developed by Best Buy's Geek Squad for EveryoneOn for public housing residents) Geek Squad Training-Module 1.p Geek Squad Training-Module 2.p
GCF LearnFree	www.gcflearnfree.org; http://www.gcflearnfree.org/; http://www.gcflearnfree.org/technology
Generations on Line	English - www.generationsonline.org; Spanish - www.generationsonline.org/espanol
Get Safe Online	https://www.getsafeonline.org
Hotspot Lending Program Guidelines	http://www.mobilebeacon.org/wifi-to-go/
JumpWireless	www.JumpWireless.org; http://jumpwireless.org/jumpedu/
Learn My Way	http://www.learnmyway.com/
Library Toolshed	http://librarytoolshed.ca/allresources
Lynda	www.Lynda.com; http://www.lynda.com/Windows-7-tutorials/computer-literacy-for-windows/68554-2.html?srchtrk=index:1%0Alinktypeid:2%0Aq:computer%2Bliteracy%0Apage:1%0As:relevance%0Asa:true%0Aproducttypeid:2
Microsoft	https://www.microsoft.com/en-us/digitalliteracy/default.aspx
NCTV	www.northamptontv.org
Net Literacy	http://www.netliteracy.org/safe-connects/
OASIS Connections	www.oasisnet.org/connections Mobile Accessibility Guides: http://bit.ly/1Qa7IRu for iOS and Android in English http://bit.ly/1ng48w6 for iOS and Android in Spanish

	http://bit.ly/ConnectionsTech On the right of our landing page download a copy of Google Drive: Access Your Files Anywhere http://bit.ly/FreeTipSheets Tip sheets for use of mobile devices in English and Spanish
Older Adults Technology Services	http://oats.org/
Partners Bridging the Digital Divide	http://pbdd.org/peoples-resource-center-training-material
San Francisco BTOP Project — Computer & Internet Basics	English - Basic Computer & Internet Classes; Intermediate Lessons Computer & Internet Chinese - 電腦及互聯網入門; 電腦及互聯網中級班 Russian - Компьютер и Основы Интернета; Промежуточные уроках информатики Spanish - Computer and Internet Basic Lessons; Lecciones intermedias informáticos
State of Alaska, Dept. of Ed. & Early Development	http://lam.alaska.gov/c.php?g=358213&p=2418782
State of Maine	http://www.maine.gov/msl/
TechBoomers	http://techboomers.com
Technology Literacy Collaborative, Minnesota	Technology Literacy Collaborative; CTEP AmeriCorps program
WikiKC	http://wikikc.org/Community_Learning_Center; http://wikikc.org/Education

g. Google Fiber, Next Century Cities & National League of Cities (November 5, 2015). Moderated by Denise Linn of the Smart Chicago Collaborative. *Learn How to Get Your Residents Online — Solution Session from Digital Inclusion City Leadership Award Winners.* Available at: http://nextcenturycities.org/digital-inclusion-awards/

h. Digital Literacy Advocacy Organizations. National Digital Inclusion Alliance. Available at: http://www.digitalinclusionalliance.org/

i. *Connecting to our Future, Portland's Broadband Strategic Plan* (July 25, 2011), Prezi presentation by Mary Beth Henry, and the *2011–2020 Connecting to Our Future: Portland's Broadband Strategic Plan* (September 6, 2011). Available at:

https://prezi.com/fosggioz7jc6/connecting-to-our-future/ also http://www.portlandoregon.gov/revenue/article/394185

j. Submitted by PIVOT, prepared for City of Portland — Office for Community Technology (September 2014). *Portland Broadband Adoption.* Available at: https://www.portlandoregon.gov/revenue/article/504164

k. TechSmart Initiative for Student Success. Visit website at: http://www.mhcrc.org/2014/10/10/techsmart-initiative-launch/

l. *The City of Portland, Innovation Project Proposal, Bridging the Digital Divide for Disadvantaged Businesses.* Available at: http://innovate.portlandoregon.gov/major-proposal/bridging-digital-divide-disadvantaged-businesses

m. Multnomah County Library. Visit website at: https://multcolib.org/events/computer-labs