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Developing Sustainable Partnerships to Advance Digital Equity

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Reconceptualizing the Digital Divide: What Gaps Exist in our Understanding

In the early 2000s, inequities surrounding affordable Internet access brought the digital divide into public consciousness. Over time, practitioners and researchers working to address this divide have revealed a persistent, wider gap that includes inequities in social support networks (DiMaggio & Hargittai, 2001). Jenkins et al. (2006) identified a participation gap in using and interacting with digital tools. Evolving conversations have produced a broader conceptualization of the issues through the lens of digital inclusion and digital equity (Siefer, 2016)[1]. Those on the wrong side of the digital divide need digital literacy training, access to technical support, and the applications and content that will enable their success in the digital world. In Portland, Oregon, the Multnomah County Library (MCL), digital literacy researchers, and community partners created a bridge to digital equity and inclusion for traditionally excluded members of the community. This work represents a model for collaboration that can be replicated in other communities.

The proliferation of digital devices has made accessing the Internet at home and in public spaces nearly ubiquitous in the U.S. (Perrin & Duggan, 2015). A Pew Research study (Anderson, 2017) indicates that 87% of adults earning more than $30,000 annually say they own a desktop or laptop computer, and 80% have home broadband access. The digital divide remains for those earning less than $30,000 annually. A growing share of low-income (20%) access the Internet only on their smartphones, up from 12% in 2012.

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[1] 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. Digital Inclusion refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of Information and Communication Technologies (ICTs). This includes 5 elements: 1) affordable, robust broadband internet service; 2) internet-enabled devices that meet the needs of the user; 3) access to digital literacy training; 4) quality technical support; and 5) applications and online content designed to enable and encourage self-sufficiency, participation and collaboration. Digital Inclusion must evolve as technology advances. Digital Inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional and structural barriers to access and use technology. See https://digitalinclusion.org/

Regardless of access to broadband and digital devices, Americans face a competency gap in using online applications and tools; that gap may represent a more challenging digital divide. Basic digital literacy skills are not sufficient to navigate complex online interfaces, discern accurate and reliable information from "fake news" and opinion, or understand how to protect personal privacy. These proficiencies are necessary to engage in almost every aspect of modern life making it possible to access a range of information, interact with public services, communicate with friends, engage in political activities, gain employment, and participate in ongoing education. However, in the U.S. adults lag behind their international peers in the skills required to thrive online.

The Organization for Economic Cooperation and Development (OECD) conducted an international survey with a nationally representative sample of adults ages 16 to 65 called Program for the International Assessment of Adult Competencies (PIAAC). Results demonstrated that the U.S. adults performed below the international average in all three areas: literacy, numeracy, and problem solving in technology-rich environments (PSTRE) (Goodman et al., 2013; OECD, 2015).

The PSTRE component of the PIAAC evaluates the ability of working-age adults to navigate online resources to complete a variety of tasks that might arise in work, personal, or civic life. Some tasks have explicit instructions, some are more ill-defined. The tasks vary in complexity and require the application of cognitive processes to understand and complete the task using simulated computer-based applications. U.S. adults scored below the international average in these skills, and several sub-groups were particularly challenged.

U.S. adults with a high school diploma or less scored lower than their international peers, as did unemployed U.S. adults. White adults in the U.S. performed higher than African American or Hispanic adults. These results underscore important equity issues facing adult subgroup populations, including immigrants, English learners, disconnected youth, adults with learning disabilities, socially isolated seniors, and dislocated workers. These skills deficits have implications for the nation's global economic competitiveness and the quality of civic life in local communities. Unlike other participating countries, younger adults in the U.S. are not surpassing the skills of older adults, another trend that calls for concerted efforts to strengthen digital access and equity, educational programming, workforce development, and life-long learning. All adults, no matter their experience and backgrounds, need support to acquire the knowledge, skills, and attitudes needed for personal, social, and economic success in the 21st century.

In today's world, individuals must increasingly rely on their own knowledge and skills to analyze and construct meaning from large amounts of information, to answer questions, and to

solve problems (Hobbs, 2010). Digital problem solving draws on an individual's ability to engage in finding information, assess reliability, reason about sources, organize and transform information and use online tools to create and communicate ideas (PIAAC Expert Group, 2009). However, these higher level thinking skills can be difficult to learn without support (Metzger, Flanagin & Nekmat, 2014).

Community-based Services and Partnerships Can Address these Gaps

For generations, public libraries large and small, in rural and urban communities, have offered knowledge and the tools of lifelong learning to vulnerable, hard-to-reach, and traditionally underserved populations. Libraries are uniquely positioned to address broad and varied digital literacy needs within communities.

The partnerships described in Castek et al. (2015) and Jacobs et al. (2015) demonstrated that programs operating within a network of connected community resources involved collaborations that benefited the organization but also benefited the individuals working within the organization such as program coordinators, librarians, community tutors, and learners. Building on partnerships forged through funding from the *Broadband Technologies Opportunities Program* (BTOP) (Reder, 2012); and examined in the *Digital Literacy Acquisition* study (see research briefs and case studies at **http://tinyurl.com/mmzhrrq**), MCL and researcher partners came together to *Advance Digital Equity in Public Libraries by Assessing Library Patrons' Problem Solving in Technology Rich Environments* (see **http://tinyurl.com/dlaerhub**). This work, funded by the Institute of Museum and Library Services (IMLS), uses the direct assessment of digital problem solving skills (see **http://tinyurl.com/ll9x2hp**) to examine adult patrons' digital literacy skills and needs. Research efforts are aligned with MCL's strategic priorities and Portland's Digital Equity Action Plan (see **http://tinyurl.com/jw24etr**).

Sustainable Collaborative Partnerships and Action Plans

Expanding access to digital literacy training and support is essential for confronting underserved adults' issues of exclusion and marginalization that are increasingly being amplified by the digital mediation of modern social life. Coordinating services is an important dimension of partnership that is vital to sustainability of these supports.

MCL provides access to public computers, broadband Internet (including public Wi-Fi), and personalized training to the community it serves and has leveraged grants and partnerships to provide tailored services to community members with low technology literacy and few resources. The library is a primary partner in collaborative, regional digital inclusion efforts that include (a) documenting community needs, (b) increasing access to low-cost devices and

broadband service, and (c) delivering training where it is needed most, in collaboration with community partners. In recent years, the library has focused increasingly on technology-related service in languages other than English (Siefer, 2017).

Often, digital inclusion partnerships focus primarily on workforce development and the skills needed to pursue a better paying job. Equally important is providing adults the opportunity to learn digital skills that empower them to connect with information resources, access digital texts and tools, and participate in social networks across a range of technology-rich environments. Ongoing, responsive, and scaffolded training and support offered by public libraries and their community partners can have transformative effects on the lives of learners and build the confidence necessary to explore the digital landscape and engage with new challenges.

The researcher-public library partnership forged across several research and service projects (see https://dlaerhub.wordpress.com/) recognizes that public libraries are community anchors that form the cornerstone of sustainable collaboration. Through such innovative partnerships the full range of factors that promote digital inclusion and greater digital equity can be addressed.

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References

Anderson, M. (2017). Digital divide persists even as lower-income Americans make gains in tech adoption. Retrieved from http://www.pewresearch.org/fact-tank/2017/03/22/digital-divide-persists-even-as-lower-income-americans-make-gains-in-tech-adoption/

Castek, J., Pendell, K., Jacobs, G., Pizzolato, D., Withers, E., & Reder, S. (2015). Volunteers in an adult literacy library program. Digital literacy acquisition case study. Retrieved from http://archives.pdx.edu/ds/psu/16517

DiMaggio P. & Hargittai, E. (2001). From the 'digital divide' to 'digital inequality': Studying Internet use as penetration increases. Retrieved from https://www.princeton.edu/~artspol/workpap/WP15%20-%20DiMaggio+Hargittai.pdf

Goodman, M., Finnegan, R., Mohadjer, L., Krenzke, T., Hogan, J., Owen, E., & Provasnik, S. (2013). Literacy, numeracy, and problem solving in technology-rich environments among U.S. adults: Results from the Program for the International Assessment of Adult Competencies 2012, First Look, 60. doi:10.1787/9789264128859-en

Hobbs, R. (2010). Digital and media literacy: A plan of action. The Aspen Institute. Retrieved from http://www.knightcomm.org/digital-and-media-literacy-a-plan-of-action/

Jacobs, G., Castek, J., Pizzolato, D., Pendell, K., Withers, E., & Reder, S. (2015). Community connections. Digital literacy acquisition policy brief. Retrieved from http://archives.pdx.edu/ds/psu/16518

Jenkins, H., Clinton, K., Purushotma, R., Robinson, A. J., & Weigel, M. (2006). Confronting the challenges of participatory culture: Media education for the 21st century. MacArthur Foundation White Paper, 1-72.

Metzger, M. J., Flanagin, A. J., & Nekmat, E. (2014). Optimistic biases in online credibility evaluation among parents and children. Paper presented at the annual meeting of the International Communication Association, Seattle, WA.

OECD (2015). Adults, computers and problem solving: What's the problem?, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/9789264236844-en

Reder, S. (2012). A multi-state support system for broadband adoption by digitally marginalized adults. Retrieved from http://www.learnerweb.org/btop/

Perrin, A. & Duggan, M. (2015). American's internet access 2000-2015. Pew Research Center. Retrieved from http://www.pewinternet.org/2015/06/26/americans-internet-access-2000-2015/

PIAAC Expert Group in Problem Solving in Technology-Rich Environments (2009), "PIAAC Problem Solving in Technology Rich Environments: A Conceptual Framework", OECD Education Working Papers, No. 36, OECD Publishing, Paris. http://dx.doi.org/10.1787/220262483674

Siefer, A. (2016). What do we mean when we say digital equity and digital inclusion? Retrieved https://www.benton.org/blog/what-do-we-mean-when-we-say-digital-equity-and-digital-inclusion

Siefer, A. (2017). Innovators in digital inclusion: Multnomah County Library. Retrieved https://www.benton.org/blog/innovators-digital-inclusion-multnomah-county-library