Research into Action: Skills Assessment and Training to Support a Digital Equity Action Plan

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This work grew out of long-standing library priorities that are shared by researchers that address digital equity.

Digital Equity Action Plan in Portland, OR

48 community partners helped create an actionable, community-wide plan.
1. Ensure access to affordable high-speed Internet and devices.
2. Provide training and support to ensure that everyone has the skills to use digital technology.
3. Empower community partners to bridge the digital divide through funding, coordination, training and staff resources.
4. Create opportunities for jobs in the digital economy for underserved populations.
5. Build a policy framework that supports digital equity and meaningful Internet adoption.

Defining Digital Problem Solving

• Problem Solving in Technology Rich Environments (PSTRE) involves using digital technologies, communication tools, and networks to acquire and evaluate information, communicate with others and perform practical tasks in Personal, Workplace, Civic situations.

• Adults need digital problem solving skills necessary for discerning accurate and reliable information, interacting with public services, communicating with friends, engaging in political activities, gaining employment, and participating in ongoing education.

Digital problem solving & PIAAC

• 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).

• U.S. adults with a high school diploma or less scored lower than their international peers, as did unemployed U.S. adults. Whites performed higher than African American or Hispanic adults.

• These results underscore important equity issues and skill development needs facing adult subgroup populations, including immigrants, English learners, disconnected youth, adults with disabilities, socially isolated seniors, and dislocated workers.

We collected data to examine our patrons’ digital problem solving skills

• See https://dlaerhub.files.wordpress.com/2017/04/gesisconferencenewestfinal.pdf
• See https://dlaerhub.files.wordpress.com/2017/04/online-northwest.pdf
• See https://dlaerhub.wordpress.com/2017/05/09/understanding-our-patrons-needs-in-order-to-thrive-together-in-a-digital-environment/
We observed and screen recorded our patrons as they engaged in digital problem solving

- We observed and screen recorded tasks to note problem solving strategies
  - Experience the PSTRE’s digital tasks yourself (in multiple languages)
    http://www.oecd.org/skills/ESonline-assessment/takethetest/

- The PSTRE framework that underlies the tasks was developed by international experts
  http://dx.doi.org/10.1787/220262483674

- We developed our own tasks aligned with the PSTRE framework's areas
  - Goal setting and Progress Monitoring
  - Planning and Self-organizing
  - Acquiring and Evaluating Information
  - Pragmatic knowledge (added due to the need to capture more than cognitive skills)

- Inter-related aspects of problem solving we observed http://tinyurl.com/lq9ancq

Findings: Stances

- What stance an individual takes toward digital problem solving affects the process and skills used
  - **Exploratory**, examines available resources to see what they do before choosing a path
  - **Procedural**, proceeds step by step, bound by previous experiences
  - **Flexible**, can let go of a direction and go in another as new resources are discovered

Partnership, Collaboration and Sustainability

- **Coordinating services** is an important dimension of partnership that is vital to sustainability.
- Many 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, complete life’s tasks across a range of technology-rich environments, and participate in social networks.

Links to More Information

  http://dx.doi.org/10.1787/9789264236844-en
- Education and Skills Online Assessment - http://www.oecd.org/skills/ESonline-assessment/abouteductionskillsonline/
- Digital Literacy Acquisition study research briefs and case studies at http://tinyurl.com/mmzhrrq

Our Blog & Library Website

- Digital Literacy Acquisition and Equity Research Hub https://dlaerhub.wordpress.com
- Multnomah County Library https://multcolib.org/

- **E-book Submission to PPDD**: Developing Sustainable Partnerships to Advance Digital Equity