Advancing Access and Digital Equity: DRAW Detailed Findings and Discussion

With the urgent need for adult digital skill development as a backdrop, the Digital Resilience in the American Workforce (DRAW) initiative, funded by the U.S. Department of Education's Office of Career, Technical, and Adult Education (OCTAE), conducted a wide-ranging landscape scan to identify effective approaches and existing resources supporting digital skills development in adult education. The scan also identified current efforts to advance digital access and digital equity; useful skill definitions, frameworks, and assessments; and practitioner professional development opportunities. Learnings from the scan are summarized in the report *Digital Resilience in the American Workforce: Findings From a National Scan on Adult Digital Literacy Instruction*. This deep dive explores findings related to advancing access to technology and digital skills instruction and digital equity.

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Introduction

As described in the DRAW landscape scan and blog "Advancing Access and Digital Equity," digital divides reflect longstanding inequities in American society, such as income and wealth gaps and uneven access to high-quality K-12 education. Lack of broadband access is a common issue in rural areas, low-income urban areas, tribal lands, and Spanish-speaking households.[1] Individuals with disabilities also use digital technologies at lower rates and are less likely to have access to PCs or tablets.[2] Many of these issues of digital inequities, as well as the critical importance of internet and device access, were laid bare during the COVID-19 pandemic.

New reports on closing the digital divide emphasize that that the digital divide is "not primarily a technological problem but instead a social problem."[3] In addition to internet and devices, digital skills training is needed to enable adults to participate in learning, find employment, and work or accomplish other tasks online.[4] More than 32 million adult learners in the

> ***With adult education programming servicing less than 10 percent of the foundational digital skills instruction needed, there is a deep need for recruitment and instructional models that can expand the reach of adult education services and support more learners with their digital skills needs.[1]***

United States need support with device and internet use and the development of digital skills.

Many experts interviewed for this landscape scan emphasized a lack of explicit and sufficient focus on technology access and use in adult education programs, despite digital literacy being recognized as a key activity for developing essential skills for employment.[5] We need advocacy from teachers, programs, and leaders at all levels to normalize the perspective that digital literacy is critical and that learners need access to opportunities to develop it.

This deep dive shares findings related to advancing access and digital equity from the national landscape scan conducted for the Digital Resilience in the American Workforce (DRAW) initiative.

For definitions of digital divides, digital inclusion, digital equity, and other related terms, visit the definitions page of NDIA's DigitalInclusion.org website.

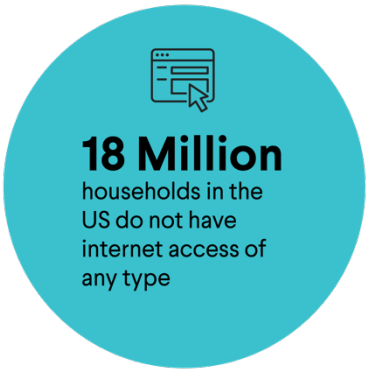
For further exploration of access and digital equity uncovered by the DRAW landscape scan, see Advancing Access and Digital Equity: Challenges and Solutions for Inclusive and Equitable Digital Access and the digital equity and inclusion crowdsourced list.

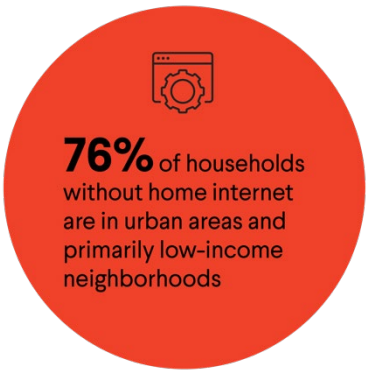
Need for Access to Technology and Digital Skills Training

Improving learners' access to the internet and devices, including the giving or lending of hotspots and larger screen devices such as tablets and laptops, is a top need for adult educators supporting adults in effectively learning, studying, and communicating online. This need became even more evident during the COVID pandemic. Yet, despite recent efforts to address digital divides, there has been only a 1 percent increase in the number of Americans three years old and older who have used the internet.[6] Deep and sustained collaboration with digital inclusion advocates—such as the National Digital Inclusion Alliance (NDIA), the Digital US Coalition, and Digitunity—is needed to truly close digital divides.

Major issues facing adult education programs include:

- Learners with limited access to in-home broadband/Wi-Fi, which is needed to enable remote learning.[7]
- Learners who rely exclusively on smartphones for internet access, many of which go in and out of service or might be shared among multiple family members, all of which limits the range of online activities possible and the ability to build digital skills.[8]
- Device maintenance and access to tech support—for both learners and programs. Having a hotline or in-person drop-in support to help adult learners secure, use, and maintain their devices was a critical need identified by expert respondents.
- Limited organizational capacity for designing and implementing digital inclusion supports.
- Limited program and institutional ownership of devices (e.g., computers, tablets, and hotspots) that instructors can use, especially in rural and low-income areas.
- Staff capacity to effectively use devices in instruction of digital skills.





Many DRAW Practitioner Questionnaire respondents expressed hope given new federal investments in broadband infrastructure and digital inclusion through the Infrastructure Investment and Jobs Act, but they also emphasized the need to couple those investments with sufficient support for adult learners and the programs and practitioners who serve them.

"There is a common assumption among policymakers and private funders alike that you purchase a device and somehow magically, by osmosis, they get set up and used. And, of course, that's not how humans work at all! Learner use will require buy-in of educators and staff capacity building."[9]

Models and Practices to Increase Device and Internet Access

Digital Inclusion Supports in Onboarding to Classes

Since the pandemic, many adult education programs have started providing individualized support for learners upon enrollment.[10] This could include a digital inclusion needs assessment and personalized digital inclusion onboarding supports (in some cases, up to six hours). Digital US Coalition representatives have argued that all individuals participating in adult education or workforce programs should have their basic digital inclusion needs met in the first hours of contact.[11] One state director recommended that adult education redesign its orientation processes to include an assessment, orientation, device distribution, and training on using technology.[12]

Use of Loaner Devices

Depending on learner needs, support could include loaner devices and hotspots, funding home internet service for the duration of the program, or helping learners sign up for affordable offers. Some programs buy devices and then reward program graduates with ownership of the device.[13] A strong benefit of device purchasing or lending is that differences in students' personal technology setups and age cause significant challenges for staff tech support. Programs need sufficient staff capacity to deploy these resources (e.g., helping learners with hotspots or subsidized home internet, setting up Chromebooks, or managing mobile laptop carts).

Many noted a need for more collaboration with K-12 districts to learn from their experiences with loaner devices or even collaboration on device purchasing and loaning infrastructure within regions. Most K-12 programs lend devices only to children and not to parents. This lack of partnership is a lost opportunity to optimize resources to support digital access and skill development for the parents of school-aged children.

Examples include:

- Digital Promise's Verizon Innovative Learning Schools Project, which, since 2014, has equipped K-12 teachers and students with individual devices and data plans as well as professional development to integrate technology into instruction.

- NDIA and Digitunity are working to provide device access in various cities by supporting technology refurbishers.
- Digitunity works with individuals and corporations to secure device donations and has helped provide adult learners with donated computers from large corporations such as Wiley and Unisys.
- Goodwill of Central Illinois partnered with PCs for People to host a pop-up event to provide free or low-cost computers, laptops, hotspots, and low-cost Wi-Fi for individuals in the community.
- During the pandemic, the Briya and Academy of Hope adult public charter schools together provided more than 1,200 students with laptops, as well as internet access to 370 students.[14]
- In 2020, Literacy Minnesota partnered with PCs for People, TechDump, and St. Paul Public Library to provide TechPak devices, internet access, digital navigation, and digital skills instruction.

Increasing Access to Instruction

Continued expansion of classroom-based instruction will not reach adult learners with barriers of limited time or lack of transportation or childcare. A related challenge in increasing the participation in digital skills instruction is that many adults with low technology skills are embarrassed by their skill level and hesitant to disclose this gap and ask for help.[15]

Recruitment Through Community Engagement

The Digital US Coalition Report[16] proposes more flexible services in different settings and contexts to provide instruction to adult learners by meeting them where they are.[17] Changing the places where instruction is delivered, the devices used for instruction, the time instruction is offered, and the people delivering the instruction can result in increased access and new community ecosystems that foster learning. Adult education programs, NDIA member organizations and a wide range of community-based organizations have been able to make supports accessible to more adults through new models of both recruitment and provision of instruction.[17]

Examples include:

- Community liaisons can help develop strategies for understanding the specific needs of adult learners within one's community.[18]
- 4-H's Tech Changemakers initiative, funded in part by Verizon, trains youth to support adults and seniors in their communities to get connected to the internet and start to use it.
- Black Churches for 4 Digital Equity aims to close the digital divide through efforts like its National Affordable Connectivity Program enrollment event held at churches in 34 cities.
- The Transforming Immigrant Digital Equity project is working with three pilot site communities to develop, document and share ecosystem and program practices that dramatically increase access to ESOL instruction, digital inclusion activities, and immigrant inclusion services.
- One DRAW Practitioner Questionnaire respondent recommended public service announcements to communicate bite-sized concepts of digital skills to support learning and increase learner motivation and engagement.

Many DRAW Practitioner Questionnaire respondents recommended listening sessions with community members to better understand community needs. One digital literacy program coordinator noted the importance of asking, "What is the culture of the community? Does it work to put flyers out? Where are your free resources and free spots in the community?" The coordinator added, "We have a huge elderly population, and they spread the word that way. I was on our local radio station on a live broadcast and my classes filled up for three months."[19]

Diversifying the Adult Education Workforce

A few adult education leaders suggested that a way to close digital divides and reach more equitable outcomes would be to have more instructors and leaders of color to provide representation to students, inform programming, and support broader community partnerships.[20] A challenge is that adult education does not offer stable employment in many settings, so investment in graduate study and licensure is a risk.[21] As Amanda Bergson-Shilcock noted, "… the field has so little slack to it. It's a bunch of people who work for eight to 10 hours a week, $12 to $15 an hour, teaching English [with] two hours of prep time and eight hours in the classroom and no professional development time."[22] This is an issue that needs attention, given that greater representation of teachers and leaders of color could mitigate comfort issues students might have around digital skills instruction.[23] Diversifying the adult education workforce would allow teachers to build more meaningful connections to students and more effectively support the whole person in advancing their education and career goals.[24]

Digital Navigator Services

The Digital US Coalition coined the term *digital navigator* in 2019, building on decades of work by libraries and digital inclusion programs to provide personalized support. Digital navigation services refers to the initial onboarding and ongoing support such services provide through multiple communication channels to ensure community members receive on-demand tech support and relevant information to secure connectivity and devices, as well as support for developing foundational digital skills.

The Digital US Coalition envisioned digital navigator services, including basic device access and tech and digital skills support, being offered in a wide range of nontraditional settings that learner-workers frequent, such as retail stores, coffee shops, health clinics, laundromats,

community centers, food banks, and even parks.[25] Libraries are a prime example, with 75 percent of respondents to a Pew Research study saying that public libraries have helped them learn new technologies.[26]

Ideally, supports are embedded everywhere digital skills touch people's daily lives, and at convenient and comfortable times and locations, even late at night for working adults.[27] One study found that participants were more likely to engage with digital navigators in more impactful ways over time—for example, reaching out for additional technical support or accomplishing a learning goal—if the digital navigator was someone with whom they already had a trusted relationship.[28] These findings suggest an opportunity for adult education programs to partner with a variety of different community organizations to help make referrals to their programs and mutually reinforce each other's services.[29]

Resources:

- The Digital US Coalition offers an online Digital Navigator Playbook that includes case studies of digital navigator services in adult education, community colleges, and library-based programs and navigator resources that can be used for providing support.
- The NDIA also offers free resources and consulting and training on the digital navigator model.

Examples:

- One model is the Cybernauts program at the Los Angeles Public Library. Cybernauts are external partners who work in the library to assist individuals or facilitate small group training on topics ranging from basic to advanced technology skills.
- Another model being used in programs such as the Ronald M. Hubbs Center for Lifelong Learning in St. Paul, Minnesota, is "push-in" digital navigators who come into adult education classes at regular intervals to provide IT services, digital skills training, and other digital inclusion support.
- California's Department of Social Services purchased thousands of laptops for federal aid recipients and had them distributed by social service staff during their home visits. The laptops came preloaded with adult learning content and licenses to Cell-Ed, a mobile learning provider that helps learners start to operate a computer through phone- and text-based instruction that does not require the internet.

- Tyson Foods added digital navigator services to its basic education services. Anson Green, senior manager of economic opportunity at Tyson, reported that the company's focus on digital inclusion has already resulted in more employees succeeding at work and achieving their personal digital skills goals.[30]
- The labor-management training partnership for property service workers in California, Building Skills Partnership, offers digital navigator services to janitors at their worksites and union halls. BSP recently trained janitors to serve as peer digital navigators to their peers, bringing personal experience and cultural and language capacities to the role.
- Various online providers of skills instruction are starting to embed digital navigator support into their online learning programs, such as the use of coaches who provide assistance via Guild Education, My Concourse, and Cell-Ed.[31]
- Many states and programs are now implementing digital navigator service models in their adult literacy and education programming, such as Literacy Minnesota and North Carolina Community Colleges. By holding these services at trusted community locations, such as stores, health care facilities, and schools, they can become less intimidating and more relevant to learners' lives and goals.

Learning Lounges

Learning lounges are a model developed by libraries for offering just-in-time and flexible supports for digital skills learning: dedicated drop-in spaces staffed with individuals who are comfortable assisting adults in using technology and in employing self-paced resources to learn. Learning lounges can be in libraries, public housing, state workforce centers, or any space that has access to computers and high-speed internet. In Rhode Island, the Providence Public Library has brought its learning lounges to two of the state's one-stop employment centers. The learning lounge offers one-on-one and small-group digital literacy training to clients who need to increase their digital literacy skills to secure gainful employment. Learning lounge staff assist clients in navigating the state's employment website, creating a resume, conducting a job search, and applying for jobs.

Learning Circles

Learning circles are peer-supported in-person or online study groups lightly facilitated by a staff member, teacher, volunteer, or learning circle participant. The facilitator helps establish a friendly, supportive learning community, prepares learning activities, and provides technical support when needed.[32] The model was developed by Peer 2 Peer University and adapted by the

EdTech Center @ World Education to the context of adult education as described in this implementation guide. This model has been used to increase access to learning in adult education programs that have waitlists or that want to provide a learning environment that offers more flexibility for learners.

Remote Instruction

An interview with an online English and digital skills provider identified the need for more flexible models that incorporate self-study instead of focusing on live, instructor-led training, enabling the programs to reach and train more adults in digital skills. Methods to support independent learning could include:

- Open online courses and micro-learning modules
- Augmented, virtual, and X-reality (use of multimodal resources)
- Games, including multiplayer online games
- Social media and connected platforms, such as Facebook, WhatsApp, and blogs
- Use of mobile technology, including smartphones, tablets, smart glasses, and mobile applications

To make free, high-quality open source digital skills instructional content more findable online, the CrowdED Learning initiative of World Education has created DigitalSkillsLibrary.org. Learners and practitioners can search for content by skill, medium, publisher, language, and other factors.

Given learners' varying preferences for and comfort levels with accessing instruction via technology and independent learning, programs must consider how to create a welcoming and safe reentry point to participation in education and development of digital skills.[33] Programs must also invest in professional development to build adult education practitioner confidence and capacity to support their adult learners to learn digital skills online, especially using newer technologies.

Ecosystem Partnerships

Digital inclusion researchers have identified collaboration across systems and programs as a feature of some of the most effective digital inclusion efforts. Research funded by the Broadband Technologies Opportunity Program offers various examples of successful partnerships between adult literacy programs and workforce centers, libraries, and K-12 schools. Some connections were made through formal agreements, such as an employment agreement with a school district to partially fund the digital literacy lab coordinator's job. Other less formal agreements were executed by individuals who knew each other from faith-based organizations, farming and community businesses, and social networks.[34]

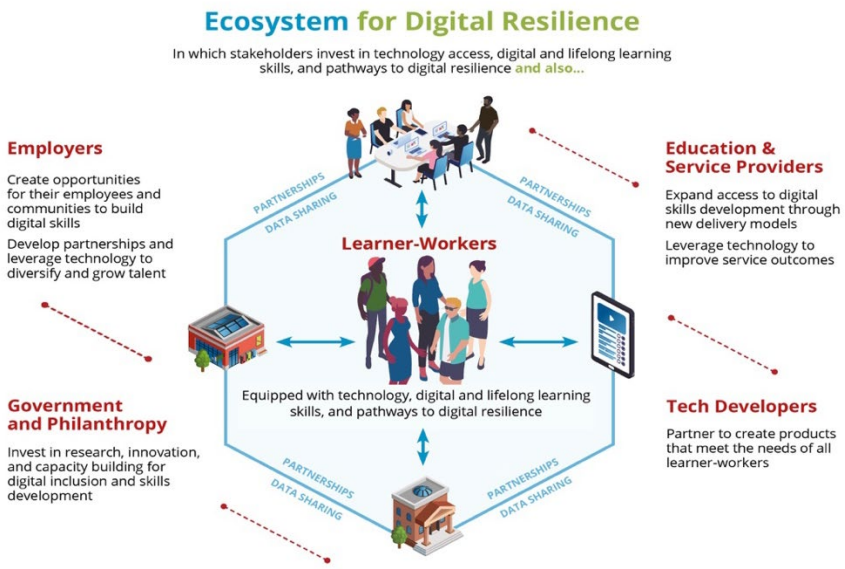
Adult education programs need support to forge partnerships with community-based organizations and other ecosystem partners, such as employers. Various organizations, such as World Education, the NDIA, and the National Skills Coalition, are closely following new U.S. Department of Commerce infrastructure and other federal investments and providing capacity building for local adult education and workforce organizations to engage in, inform, and partner on state spending on digital inclusion. Additional investments in capacity-building efforts, with an emphasis on sustaining partnerships, would help ensure effective design of programming and partnerships as well as lasting impact.[35]

Effective collaboration can support:

- **Learning at work:** Partnerships with employers are critical in efforts to engage workers at their worksites, including on paid time.[36] The National Immigration Forum's Upskilling New Americans: English at Work program worked with the EdTech Center at World Education to adjust the training content and delivery methods to a fully remote, streamlined format to meet employer and employee scheduling needs. This allowed learners to build more digital literacy skills along with English skills, which helped employers realize increased returns on investment.[37]
- **Access in rural regions:** A partnership between Southwest Minnesota State University and an adult education program allowed for broadcasting ABE classes via the university's Adobe Connect web conference program, resulting in greater accessibility in a very rural part of the state[38].

The Digital US Coalition highlights a model it calls "Ecosystem for Digital Resilience" (shown below), in which the learner is at the center and employers, education and service providers,

government and philanthropy organizations, and tech developers and companies all partner to meet the needs of a wide range of learner-workers[39].



Source: Digital US Coalition, Building a Digitally Resilient Workforce, 2020.

A full list of models and examples identified in the DRAW landscape scan on advancing access and digital equity can be downloaded here.

Funding for Digital Access and Inclusion

Funding is a major barrier to digital inclusion supports. In adult education programs, the minimum of 12 learner contact hours as well as pre- and post-assessments are barriers to programs offering limited hours of general digital inclusion support, and the lack of reimbursement for measurable skill gains in foundational digital literacy is a disincentive for many programs. Flexible funding models could help programs expand digital access and digital skill development, including drop-in workshops or on-demand digital navigator services.

- California requires the use of existing adult education funds to support digital skill building in all requests for applications. The state also provides technical assistance to help programs with PD, program design, and learner assessment. In addition, it encourages cross-WIOA program collaboration in digital skill-building models, ensuring that it is an explicitly permitted use of existing workforce development grant programs.[40]

- Many federal funding sources (e.g., SNAP EBT) allow the purchase and gifting of devices, and many adult education students are participants in such programs. But currently, few adult education programs are closely coordinating with social services to ensure that students who qualify for devices get them. States need guidance on helping local programs use federal funding, including the new Infrastructure Investment and Jobs Act and Digital Equity Act, to purchase devices for learners.
- In some cases, state and local adult education funds are more flexible than Adult Education and Family Literacy Act funds and can be used to cover internet and device access, which can be especially helpful in rural areas.[41]
- Set-aside state leadership funds can also be used on digital skill initiatives, including educating policymakers on the economic development imperative of investing in digital skill development.
- Many private and corporate foundations are interested in funding digital inclusion as part of their social responsibility investment priorities. For example, Verizon is developing strategies that use technology and connectivity to advance social justice while simultaneously delivering value to the business. A representative from Digitunity noted that it is critical for adult education leaders to integrate such corporate leaders in their own digital inclusion efforts.

Conclusion

With unprecedented attention and new federal funding to close the persistent digital divide, there is reason to be optimistic about advancing digital inclusion, digital skills, and digital equity for tens of millions more Americans. However, the digital divide is a deep social problem that requires new partnerships and new models of collaboration, as well as intentional engagement of organizations representing the full spectrum of adults with emerging digital literacy. Our landscape scan identified many effective models and practices along with organizations able to assist in implementing them. To learn more, read the Digital Resilience in the American Workforce blog on challenges and solutions in access and digital equity. The next step already underway in the DRAW initiative is to develop professional development resources for adult educators on fostering their learners' digital skills, which starts with access to technology and supports. Please follow the DRAW project page for further updates, information, and professional development support, and opportunities to join discussions on advancing digital resilience and equity.

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