Digital US

Building a Digitally Resilient Workforce:

Creating On-Ramps to Opportunity

DIGITAL US COALITION

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Foreword

Businesses have long recognized the importance and value of digital skills. But the COVID-19 pandemic has shown that they are more than important. Digital skills are essential in this current time and well beyond it.

As schools and training providers have shut down in-person classes and telework has become the norm across many industries, those without devices, connectivity, or digital skills have been shut out from the increasingly online world.

When Digital US launched in late 2019 with the goal of ensuring all individuals in the U.S. have the digital skills to thrive in work and life by 2030, the economy looked very different. After a decade of economic expansion, employers struggled to attract and retain talent in the tightest labor market in 50 years. Emergent technologies were rapidly transforming the world of work, shifting skills expectations for incumbent workers. Against that backdrop, business leaders warned of a looming "Digital Blindspot": the risk that employers might overlook the subtle, and sometimes counterintuitive, ways in which the diffusion of technology created challenges for workers across the enterprise. We worried about growing wage inequality and the ability of workers who lacked digital skills to withstand and navigate this accelerating change.

All of these concerns remain: companies are continuing their shift to digital processes, and emerging technologies continue to alter the economic landscape. But in recent weeks, the fault lines of technology access and digital skills have been laid bare by a global pandemic and an unexpected economic sea change.
of employment, which means both companies and individuals will need to continually build, memorialize, and share technology skills.

Video conferencing is now being used not just by white-collar professionals working from home, but also by schools to connect teachers and students, by faith-based organizations, and by first responders. People of all ages are using digital tools to connect with friends and loved ones during a time of social distancing. And as state and local governments move quickly to stem the tide of the pandemic, the most up-to-date information on new guidelines and closures is most readily available online.

Perhaps as a result, fewer Americans today take their digital skills for granted. The COVID-19 pandemic has forced us to take stock of not just our reliance on technology, but also the myriad challenges faced by those without the skills, devices, or connectivity to make the sort of sudden, digital shift that a pandemic necessitates.

As we write, the overall economic implications of the COVID-19 pandemic are unclear. Current estimates are that the United States could face unemployment rates as high as 30% in the coming year. For employers, triaging immediate needs is their primary focus today. For some, that means rapidly hiring hundreds of thousands of workers to meet surging demand. Others are working to repurpose or responsibly offboard employees because of unexpected closures. Many are implementing business continuity plans that weren't designed for a months-long work from home scenario.

In each of these cases, supporting the development of digital skills will help companies meet their rapidly shifting business needs. And as it turns out, ensuring as many individuals as possible are digitally fluent may be a lynchpin for recovery. Responding to the COVID-19 pandemic will mean some workers will need to upskill—either to find a new position or to take on new responsibilities because their company has shifted its production or approach in response to the crisis. Others will need to be able to access online job boards or other unemployment resources as they seek new employment.
Digital skills are fast becoming an imperative for displaced workers as job applications, interviews, and employment and career navigation services move online.

Private sector leadership now is vital to ensuring we are build digital resiliency across our workforce at every level, from frontline employees providing vital services to ensure Americans have access to basic needs, to technologists supporting pathways to the skills of the future, like cloud computing and implementation of blockchain technology.

Walmart is investing significantly in the digital skills of its workforce to ensure workers can handle evolving technology (like new systems for checkout or online pickup orders) and the company can scale up to meet heightened demand during this challenging time. Wiley is helping employers define and validate digital skills they will need from digital literacy to expert AI, connecting educators and employers with the content to build a digitally savvy workforce at scale and connecting learner-workers directly to employment opportunities. And Microsoft, a leader in supporting broadband access, is on the front lines of the skills movement, working with groups like Skillful to support both digital access and inclusion to ensure every individual can participate fully in the modern economy. Digital skills are also important in nearly every industry, highly teachable and transferable. This means that, at this moment of rapid workforce change, they're more important than ever.

In this moment, businesses must all work together and learn from one another. We're all in uncharted waters. That's why there is so much value in Digital US serving as a central hub—both facilitating peer-to-peer conversations among employers and building a community dedicated to ensuring all of US are digitally resilient.

We recognize that, in this moment, the needs are urgent, and resources seem scarce. Yet, this is exactly the time in which we must now redouble our commitment and investment in the digital resilience of the American workforce. We call on our peers in the business community to prioritize the development of digital skills to ensure we all have the workforce we need to rebuild, recover, and thrive and that we're creating on-ramps to opportunity for all Americans. During COVID-19, many have used the term "the new normal" to describe the state that we will return to post-pandemic. We cannot afford to return to "normal."

Brian A. Napack, Wiley
Digital US Business Partner

Executive Summary

Today, nearly every aspect of labor market participation is digital. From how we find jobs and apply for them to how we accomplish daily workplace tasks, the ability to navigate in a digital environment is vital to getting and keeping a job in the modern economy.

For many, digital skills are such a part of day-to-day life that it's hard to imagine not having on-demand access to nearly any form of content or any piece of information. But the 32 million adults in the U.S. who lack basic digital literacy are locked out of this digital world and the opportunities that come with it, exacerbating existing inequalities.[1]

With digital literacy being a precursor to more advanced technical skills and proven to improve performance and lead to higher wages, digital skills are a necessary on-ramp to a good job and stable career.

These 32 million Americans aren't the only ones who struggle with technology. Half of Americans aren't comfortable using technology to learn.[2] This means they may struggle to upskill to meet changing workforce expectations. The World Economic Forum expects that by 2022, the core skills needed to perform most roles will change by 42%,[3] which means individuals who aren't comfortable using technology to learn are at risk of falling behind. Despite common misperception, this is not a problem that will age out as a quarter of those who cannot use a computer are aged 16-34, and 58% of millennials lack problem-solving skills in a digital environment.[4]

Digital US is a diverse coalition of community and business partners working to ensure that by 2030 all of US have the essential technology skills and digital resilience to thrive in work and life. Opening the doors to opportunity for individuals and creating a workforce with the digital skills employers seek requires coordinating a holistic effort that connects disparate players—training providers, community-based organizations (CBOs), employers, technology developers, and policymakers. Through a collective impact approach, Digital US is helping to do just that.

The digital transformation that typifies the future of work isn't limited to high-tech jobs. Eight out of ten middle-skills jobs now require digital skills. Historically nontechnical occupations, including warehouse pickers and packers and personal care aides, are among those feeling the biggest pressures from the adoption of new technologies.[5] Additionally, COVID-19 measures have catalyzed many organizations to shift to digital provision of services, requiring employees at all levels to learn new digital skills. Technology skills are both an essential on-ramp to finding and getting a good job and a pathway to future opportunities. And developing these skills is an effort that will extend beyond a single training program or period of employment, which means both companies and individuals will need to continually build, memorialize, and share technology skills.

> *"Digital skills are becoming table stakes in today's economy. That's why we are committed to making digital skills training accessible to both our associates and customers from the communities we serve. Together, we can make digital readiness and resilience a reality for all Americans."*
> ***Andy Trainor, Vice President, Walmart U.S. Learning***

Digital US

Creating an ecosystem that will support learner-workers in obtaining the digital skills they need is an important first step. But if we treat digital literacy as an endpoint, it won't be enough. As job expectations change, the digital skills needed for employability will likewise shift. That's why Digital US is focused on ensuring all of US have the personalized supports and opportunities to develop **digital resilience**.

> *Digital resilience signifies having the awareness, skills, agility, and confidence to be empowered users of new technologies and adapt to changing digital skill demands. Digital resilience improves capacity to problem-solve and upskill, navigate digital transformations, and be active participants in society and the economy.*
> ***Digital US Coalition***

This inaugural report from the Digital US coalition, the result of a six-month landscape analysis and strategic planning period, lays the groundwork for a new collective impact approach to support both on-ramps to digital skills as well as pathways to new opportunities. It serves as a clarion call to employers, policymakers, and training providers, all of whom must engage to make this work successful. And it sets the agenda for a connected approach, building on the impressive efforts already underway, with Digital US as an umbrella organization and principal convener, allowing all our partner organizations to address challenges that can't be solved by any group alone.

Creating on-ramps to opportunity will require addressing persistent challenges, including:

Existing inequities in access to technology and connectivity

The cost of internet access and the challenge of purchasing and maintaining hardware means that many individuals in both rural and urban areas of the U.S. don't have consistent access to digital resources. Cost is a top barrier for households without internet access, 60% of which make less than $35,000 a year.

Difficulties accessing digital skills training

Fewer than 10% of adults who lack basic digital literacy are receiving training. This reflects the lack of funding (and therefore low availability) for these programs; the challenges that learner-workers face in attending training programs including lack of affordable child care, transportation, and time; and a need to create more accessible delivery models to overcome these barriers.

Challenges in providing relevant and high quality, effective supports

Too often, training providers and employers don't have access to either the best practices or professional development that could help them increase their reach and improve their services. Additionally, limited use of assessment and lack of alignment in digital skills frameworks across stakeholders hinder the ability to accelerate learning and identify, share, and scale what works.

Understanding these gaps is vital to understanding where we need more investment or new solutions. This report highlights promising practices and initiatives worth aligning and scaling. And it calls for building an equitable learning ecosystem for digital skills, one that provides critical on-ramps and pathways to technology access and skills that millions of learner-workers need to be able to develop digital resilience.

We can't do it alone, but we can provide supports to build and catalyze the process.

Together Digital US coalition members are leading efforts to:

Raise awareness of the importance of digital resilience to engage diverse stakeholders and spur investment and partnership from employers and others in scaling effective practices for increasing access to technology, development of digital skills, and digital equity;

Innovate and scale new delivery models to fill persistent gaps in access to technology and training, including through just-in-time "digital navigator" services offered virtually and at locations learner-workers frequent, and infusing digital skills instruction into the delivery of diverse services;

Serve as a clearinghouse for evaluating and sharing effective practices and models to improve digital inclusion and skills training efforts and align disparate efforts for increased impact; and

Educate decision-makers on practices they can implement under existing policies to remove barriers to digital inclusion as well as policies that must change to develop a more equitable digital future for all of US.

Building Pathways to Digital Resilience and Equity

Increasingly, technology is built into nearly every aspect of our daily lives: online-only bill payment, tablets to check-in at the doctor's office, emails and apps to connect with your child's teacher, and self-checkout at grocery stores.

But in our quest to save money and increase efficiency, we risk creating systems that marginalize individuals who currently lack the connectivity—and skills—to navigate an increasingly digital world.

The challenge to keep up with new technologies and changing digital skill demands is especially acute in the world of work. Headlines often focus on the 5% of occupations such as truck drivers at risk for automation-driven obsolescence or on the heightened demand for coders and computer scientists.[6] But technology is changing the skill requirements and work experience in all jobs. The McKinsey Global Institute estimates that a majority of existing jobs (60%) could have nearly a third of their work activity automated using technology that already exists today.[7]

Employers are feeling the pressure:

8/10

U.S. executives are highly concerned about the digital skills gap.[8]

2/3

workers who struggle to use computers are using them on the job anyway.[9]

Even middle-skill workers show significant gaps in "digital readiness".[10]

Workers are feeling this pressure too: a majority of Generation Z and Baby Boomer respondents in LinkedIn's Opportunity Index 2020 noted that technological change is a barrier to opportunity.[11] These workers understand that failure to continually upskill will inhibit their future earning potential and close off would-be pathways. This is true across the employment spectrum: some of the jobs digitizing most quickly are those that currently require little to no digital skills.[12]

Workers of all generations recognize they need to develop new skills to stay competitive. Because most individuals will need to acquire new digital skills throughout their working life, we refer to all adults of working age as "learner-workers."

While digital transformation is now ubiquitous, access to opportunities to develop necessary digital skills and digital resilience is not. Today, 32 million Americans don't feel comfortable using a computer, and 73% of service sector employees lack skills to solve problems in digital environments.[13] Half of all Americans cite a lack of comfort in using technology to learn.[14] Yet very few of these learner-workers receive training to improve their digital skills.[15] Inequitable access to digital upskilling has deep implications for individuals, as well as for the economy as a whole.

Digital Equity Imperative

In our increasingly tech-infused world, digital inequity compounds existing disparities and constrains the U.S. economy.

80% of middle-skill jobs require digital skills.[16]

Yet...

Access

18 million

households do not have internet access

including 14 million low-income households in urban areas and 4 million in rural areas.[17]

Skills

32 million

adults can't use a computer

and 1/3 of U.S. workers and 1/2 of Black and Latino workers have limited or no digital skills.[18]

Resilience

1/2

of Americans aren't comfortable using technology to learn

and OECD found that 72% of US lack sufficient digital problem-solving skills, including 58% of millennials.[19]

Lack of access to technology and foundational digital skills training locks many people out of opportunities, with considerable costs to them and our wider society.

When some of US are **not** able to:

- Apply for jobs online
- Use basic operations software at work
- Use technology for continuous learning
- Work online

- Access health, financial, government or other services online
- Sell or buy new or upcycled things online
- Monitor water or electricity use online

- Participate in children's schools' communications systems
- Engage with civic issues online
- Access resources to be an informed citizen

It impacts ALL of US:

Local businesses, employers, schools, communities, healthcare, government and service providers, our environment and more

Yet there's reason to be hopeful. Employers, government agencies, technology developers, and other diverse stakeholders have incentive to invest in digital skills development. And learner-workers express interest in and understand the value of developing technology skills.[20] Additionally, many digital skills are highly teachable.

But basic digital literacy can't be the endpoint. The World Economic Forum expects that by 2022, the core skills needed to perform most roles will change by 42%.[21] As job expectations change, the definition of digital literacy will likewise shift. That's why Digital US is focused on creating digital resilience.

"The coalition defines **digital resilience** as having the awareness, skills, agility, and confidence to be empowered users of new technologies and adapt to changing digital skill demands. Digital resilience improves capacity to problem-solve and upskill, navigate digital transformations, and be active participants in society and the economy."

Digital US is a diverse coalition of community and business partners working to ensure that all learner-workers in the U.S. have the essential technology skills and digital resilience to thrive in work and life. Opening the doors to opportunity for individuals and creating a workforce with the digital skills employers seek requires a holistic effort that connects disparate players—training providers, community-based organizations, employers, technology developers, and policymakers. Through a collective impact approach, Digital US is helping to do just that.

Digital US partners represent critical stakeholders across the education and employment ecosystem.

Digital US Partners

- Barbara Bush Foundation for Family Literacy
- Byte Back – Tech Within Reach
- COABE – Coalition on Adult Basic Education
- Digital Promise – Accelerating Innovation in Education
- EdSurge
- Goodwill
- IEL – Institute for Educational Leadership – Innovation. Equity. Leadership.
- ISTE
- JFF
- National Association of Workforce Boards
- NDIA – National Digital Inclusion Alliance
- National Immigration Forum
- National Skills Coalition – Every worker. Every industry. A strong economy.
- National Urban League
- New America
- nten – Connect • Learn • Change
- Open Door Collective
- Opportunity @ Work
- ProLiteracy
- Rework America – A Markle Initiative
- UpSkillAmerica
- U.S. Chamber of Commerce Foundation
- Value USA.org
- Wiley
- World Education – Engage, Educate, Inspire

Together we are working to:

Drive Awareness

We must educate on the urgency—and equity imperative—to close digital skills divides, and make digital resilience a national priority.

Develop Digital Resilience

We must scale effective practices in digital skills development and inclusion, and innovate solutions to address current gaps.

Design Equitable Ecosystem

We must support policymakers, employers, and others to create systems for digital upskilling that work for all of US.

Our work builds on that of our partners, including the Markle Foundation's Rework America Business Network, which convenes executives from Fortune 500 companies to develop solutions that will transform America's outdated labor market. And it extends efforts and learnings from community-based partners such as Goodwill Industries®, a leader in community-based digital skills development as well as a large retail employer.

Employers increasingly realize that developing a talent pipeline with the skills they need requires a systems-level approach. It's no longer enough to try to train workers as they come through the door. Companies need their whole supply chain to have access to sufficient talent to meet demand, for example. As a result, employers are incentivized to support the development of delivery models, skills frameworks, and other resources that will lead to broad-based improvement in digital skill development. But this work can't live solely within individual employers. Learner-workers will need support with digital skills pathways that wind through multiple firms and organizations. As individuals move up the digital skills spectrum, they will need ways to memorialize and share these skills, which necessitates working together across firms, sectors, and disciplines.

Digital US is working with diverse stakeholders—including worker organizations, community-based organizations, and policymakers—to develop, support and disseminate delivery models, skills frameworks, curriculum and other resources they need to make effective training investments.

Developing the programs and supports that foster digital resilience will require identifying both what's currently working and the gaps that exist. We need to know where we need to go—but to get there, we also need to understand where we're coming from. This inaugural report from the Digital US coalition, the result of a landscape analysis and strategic planning period, highlights promising practices and initiatives worth aligning and scaling. And it calls for building an equitable learning ecosystem for developing technology skills and digital resilience that works for all of US.

The Challenge: Build Inclusive On-Ramps and Pathways

Opening the doors to digital opportunities for millions of learner-workers currently being left behind requires designing and building at scale the critical on-ramps and personalized supports they need. We must start by ensuring that all of US have access to 1) technology and connectivity and 2) digital skills development opportunities while also ensuring 3) the relevance and effectiveness of digital skills instruction and supports. We must also design and build an ecosystem for digital skills development that maintains seamless pathways to the job-specific technical skills and credentials, higher digital skills, career opportunities, and lifelong learning skills increasingly needed for digital resilience.

Pathways to Digital Resilience

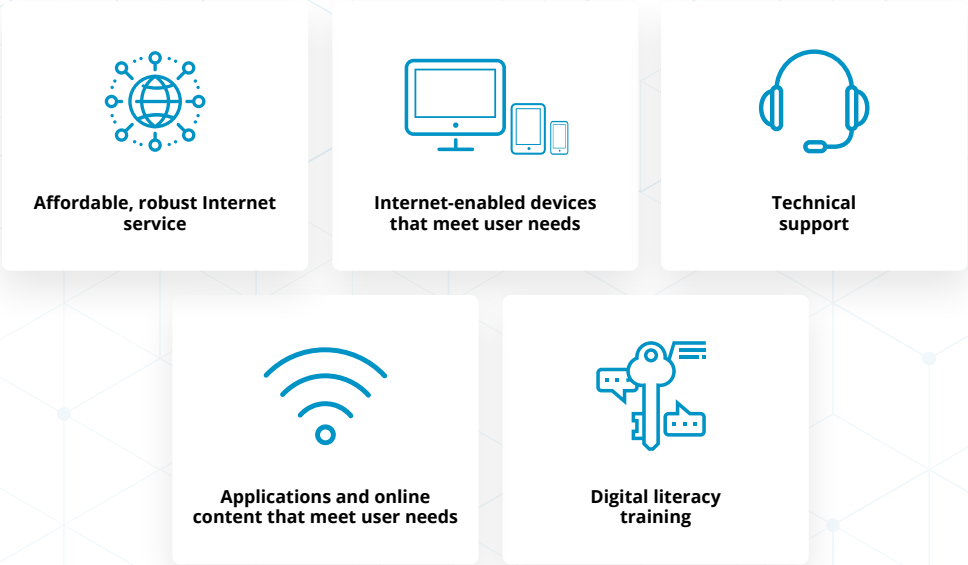
On-ramps to digital resilience are particularly important to learner-workers already at the margins, including adults who lack a high school credential, have low literacy or numeracy skills, are working jobs with low wages, or seek additional career opportunities. Additionally, for decades, low-income individuals, people of color, individuals with disabilities, rural residents, and immigrants have faced greater barriers to accessing the internet, devices, and opportunities for digital skills development.

A new fact sheet, **Applying a Digital Equity Lens to Digital Literacy**, from the National Skills Coalition details how learner-workers of color are disproportionately affected by digital skill gaps compared to their white peers, in large part due longstanding inequities in American society, such as income and wealth gaps and uneven access to high-quality K-12 education.[22] Americans with disabilities are adopting technologies at lower rates regardless of age.[23]

> *"Digital inclusion efforts require coordinated and intentional efforts to reduce and eliminate historical, institutional, and structural barriers. Building on-ramps and pathways to digital inclusion and resilience will take frank conversations with everyone at the table, innovation, and unprecedented commitment and investment."*
> ***Angela Siefer, Executive Director, National Digital Inclusion Alliance***

Technology access and opportunities for digital skill development are intertwined and critical elements for digital inclusion. For the purposes of this report, we explore gaps in access to technology and connectivity before we address gaps in access to digital training and the relevance and effectiveness of instruction. We then make recommendations on how to fill these gaps and highlight promising efforts we can support, align, and scale for greater impact in closing digital divides.

Elements of Digital Inclusion:



Source: NDIA

Gap: Access to Technology and Connectivity

Developing digital resilience starts with ensuring individuals have access to digital devices, internet connectivity, technical support and relevant technologies.

Hardware and Technical Support

Although technology feels ubiquitous, only about half of households earning less than $30,000 per year have a computer, compared to 94% of households making over $100,000.[24] And while two-thirds of these more affluent households have multiple types of devices—access to a computer, tablet, and smartphone, in addition to broadband—19% of Americans don't own even a smartphone.[25] Smartphones are a critical first step for many, but functionality and opportunities for digital skills development on mobile devices are limited by various factors including limited screen size and storage and lack of a keyboard.

Initial access is only the first hurdle. Learner-workers who own computers and other devices often struggle to keep them maintained and to access tech support when they break down. For example, lack of consistent, convenient access to functioning computers contributes to lower academic achievement rates for low-income college students.[26]

Connectivity

Of course, access to hardware is only the beginning. Internet access is equally important to create an inclusive digital ecosystem. Yet today, nearly 18 million households in the U.S. don't have Internet access of any type (including cellular or satellite).[27] Many rural communities have either no or inadequate connections.[28] Only about half of those living on tribal lands have high speed Internet service.[29] But this isn't just a rural problem—76% of households without home internet are in urban areas and primarily in low-income neighborhoods, disproportionately affecting people of color.[30] The cost of being connected is a barrier for many. Language also plays a role, as Spanish-language-dominant Americans are less likely to report having high-speed Internet at home.[31]

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18 Million Unconnected Households[32]

4 Million Rural

zero-broadband households are in **rural** Census tracts, as reported by the 2018 American Community Survey.

14 Million Urban

zero-broadband households are in **urbanized** Census tracts, where high-speed broadband has usually been available for years.

19% of Americans don't own a smartphone.[33]

Those with smartphone-only internet access

- Tend to have lower incomes
- Reach data caps quickly
- Lose service often for financial reasons
- Are limited by screen size and lack of a keyboard

Pew Research Center

Limited income is the common thread among these unconnected households, of which 60% make less than $35k per year.[34]

Tamea is a single mom and teacher's aide earning her associate's degree online.

"I didn't have a computer, and knew nothing about using one. I couldn't have just enrolled in an online program. If I wasn't given a computer and a coach to teach me the things I needed, I would have dropped out."

Tamea Bishop, Concourse Educator Pathway, Richmond, California

Celso, a U.S. citizen from Mexico, was helped by his local library to find and search for jobs online.

"I was looking for a job but in all the places I went they told me that I had to apply online. I knew nothing about computers, and I needed help with my applications. I visited the Learning Lounge, and with the help of the career coach I got a good job at a bakery near my house."

Celso, Providence Public Library, Providence, Rhode Island

Richard, a Navy veteran, went to a career center daily to access the internet and vocational rehabilitation services, and he eventually got certified as a network engineer.

"This place is here to help me.... If I don't have the internet, if I don't have a computer or a printer, it's not a problem."

Richard Clinton, San Diego Workforce Partners, San Diego, California

Miguel first accessed internet and computer training in public housing, which he's now using to transition out of unemployment caused by a physical disability.

"I only knew how to use Facebook and YouTube. I see the computer in a different way now. I use email, pay my bills online, help my daughter with her computer needs for school. Now I'm on the Internet all the time, and I plan to start an online business."

Miguel Soto, Providence Housing Authority, Providence, Rhode Island

Gap: Access to Digital Skills Development

Over 90% of learner-workers find it difficult to engage in foundational digital literacy training or to get other in-person supports for their education needs.[35]

Limited opportunities to access digital training programs are driven both by insufficient investment in these programs (and therefore too few programs offered) and by challenges for learner-workers in physically accessing these programs, due to location, lack of transportation, or lack of child care, among other reasons.[36]

"Formal adult education programs help roughly 1.5 million adult learners develop foundational skills each year, but with limited funding there are close to 40 million more adults we still need to support," says Sharon Bonney, CEO of the Coalition on Adult Basic Education (COABE). "We need to garner resources and develop new ways to provide training in all essential skills—including digital literacy—that take into account individuals' real-life barriers."

Most learner-workers find it difficult to engage in digital skills training or get other in-person supports for their education needs.

Less than 10%

of the 32 million adults who lack basic digital literacy skills are receiving adult education services.

Top Access Barriers:

Availability:

Federal funding for job training has decreased 30% since 2001, and most local CBOs providing digital skills training receive no public funding.

Flexibility:

Many services are not offered with the varied times, locations, and sequences (including in bite-sized chunks) that could increase access.

Lack of Wrap-Around Supports:

Learner-workers struggle with the lack of affordable child care, efficient transportation, and tuition assistance.

Additionally, while efforts by employers and education providers to offer training through online courses can extend essential career pathways to many more learner-workers, they often leave out those who don't have consistent access to digital devices and/or the internet at home. Research by Pew, VALUEUSA, and New America found that the majority of Americans, and especially learner-workers in jobs with low wages, are uncomfortable studying online.[37 38 39] This is true for younger Americans as well as a quarter of U.S. workers with no digital skills are between the ages of 16-34.[40] And even just the first step of referring and onboarding learner-workers with low digital literacy to technologies most often requires a human touch.[41] These individuals will need new blended learning models and other flexible ways to access in-person supports to ensure their comfort and success in online learning.

When organizations that engage with learner-workers—including employers, educators, and diverse service providers—integrate technologies into their service provision and provide supports

for effective use, learner-workers are exposed to the power of technology and develop essential digital skills. Unfortunately, the dissemination and adoption of products that are proven effective is compromised by limited capacity of many businesses and employers to select and implement new technologies.

Another barrier is the relative lack of investment in technologies designed to meet the needs of learner-workers with lower digital or other foundational skills.[42] According to Jen Vanek, the director of digital learning and research for EdTech Center @ World Education, this makes learner-workers less likely to think that a technology is meant for them, less likely to engage, and more likely to lose opportunities to develop digital skills in the process of using technologies to complete relevant tasks.

Both limited capacity of organizations to select and implement technologies effectively and the lack of investment in tools designed for the learner-workers with low digital fluency limit opportunities for many of US to develop digital resilience.[43]

Samiria learned to use a computer at a DC public library and is now working toward two IT certifications.

"For me as a parent, I had to get on my technology game, as there is so much technology I don't know.... I'm looking to go into web design, as I have all these ideas that need to get out. I have decided that I'm going to take over tech."

Samiria Simmons, Byte Back, Baltimore, Maryland

Maria earned Northstar Digital Literacy certification in classes that she now teaches, and she is working towards Microsoft Office Specialist certification.

"Growing up in Guatemala I didn't think much about technology, but in the U.S. I discovered it was essential. Living in public housing gave me access to training programs to learn about using technology and prepared me for a career in the field."

Maria Quinonez, Providence Housing Authority and Roger Williams University College, Rhode Island

Oscar, who works in building maintenance, received English classes at work that included how to use his phone to study and to navigate building operations and HR software.

"My English teacher showed us how to download the Cell-Ed app, register, and change levels. I also use my phone to learn on YouTube how to fix things at work and the plumbing and handyman work I do in my own business."

Oscar Amador, Literacy Council of Northern Virginia, Falls Church, Virginia

Gap: Effectiveness of Instruction and Supports

A challenge for providers of digital skills instruction and supports is addressing the unique interests and needs of these learners-workers to help them accomplish their goals. Creating relevant programs also means recognizing and respecting the variability in skill levels and needs, given the wide range of learner-workers' educational attainment, English language understanding, age, and workplace and life experience. "The digital upskilling needed by an immigrant Haitian woman who works in a home health job in a city may differ from a white male factory worker in rural America," says Amanda Bergson-Shilcock, a senior fellow with the National Skills Coalition." And too often, people end up with fragmented knowledge because their learning was in context-specific skill development that is a challenge to transfer to other settings." [44]

As a result, training programs must customize learner pathways by building on the fragmented knowledge individual learners have developed through prior use of digital tools. Differentiated instruction is difficult to implement at scale, but the challenge also represents an opportunity. If programs can assess the competencies of learner-workers, they can offer skill boosts through targeted instruction that can support learner-workers in quickly getting the skills they need for a new job or career path or to start or run a small business. These skill boosts aren't limited to basic digital skills. Recognizing the need for data analytics capabilities, several organizations have launched courses on data analytics fundamentals to help companies more quickly access talent with these high-demand skills.

Digital skills instruction must be both specific enough to prepare learner-workers for their immediate employment or other goals and broad enough to prepare them to transfer competencies to other jobs and contexts, problem-solve using technology, and become empowered lifelong learners of new technologies.

Joanne Martin developed computer skills and terminology to feel confident interviewing for a job and move out of public housing.

"I can have an educated conversation about computers now using the correct words. I also liked learning about email etiquette because I almost lost my job a year ago because I wrote a business email in all caps. I didn't know because I never had a class like this."

Joanne Martin, Providence Public Library, Providence, Rhode Island

Jimmy, a veteran, earned the Information Technology Infrastructure Library (ITIL) certification through Goodwill®. He's now an Executive Officer at Dental Health Activity (DENTAC), overseeing IT.

"I tell everyone to visit Goodwill for job assistance because I am here as a result of their help. Computer technology allows me to be more efficient and valuable to my organization."

Jimmy Slade, Goodwill Industries® of the Upstate/Midlands, Greenville, South Carolina

Digital Skills Content Needs to Be:

Integrated & Applied	Immediately Relevant and Current	Designed & Defined for Use in Multiple Contexts	Forward Looking
Is infused into delivery of other programming and instruction – not taught in isolated digital skills classes	Helps learner-workers to succeed in tasks/goals that are immediately relevant and current to their own lives	Prepares learners to transfer competencies to other jobs, industries, or life contexts	Develops empowered learners of new technologies who can problem-solve in technology-rich settings

Some programs are doing an excellent job teaching to all of these needs. Still, a lack of research on effective practice, professional development opportunities, and policy means best practices are often not formally validated, disseminated widely, or adopted at scale. A Benton Foundation report found many community programs need to build effective assessment into their programs to demonstrate results and learn how to improve their training.[45]

Additionally, digital skills mean different things to different people. Skill definitions and assessments vary depending on the skills they cover, causing confusion between educators, employers, and learners. Lack of alignment on skills definitions and frameworks across stakeholders hinders effective partnerships and the identification, sharing, and scaling of what works.

Christian learned he loved coding through a free coding class at the library and later became the teacher.

"I grew up loving video games. I had an interest in coding but just wasn't sure if it would be a fit. Turns out it was! After my 10-week Rhode Coders "exploratory adventure," I was able to successfully enroll in the highly competitive 13-week General Assembly Web Development Immersive training."

Christian Mignacca, Providence Public Library, Providence, Rhode Island

Guled is a refugee who learned to use a computer to write a resume, search for a job, and qualify for work as a security guard.

"Computer classes and earning the Northstar certificate were a lifeline to me. I now tell all my friends from Somalia about them."

Guled, Goodwill® Easter Seals, St. Paul, Minnesota

Solutions to Support a Digitally Resilient Workforce: On-Ramps and Pathways to Digital Skills

As it turns out, the same technologies that create digital divides and opportunity gaps also have a part to play in closing them. Technology can provide anytime, anywhere access to digital learning and essential information, accelerate the impact of interventions, and open doors to new opportunities. But creating and scaling solutions to the gaps identified earlier in this paper requires a nuanced understanding of the needs of learner-workers so as to be able to provide the right level of support to effectively meet their goals. Many digital learning, employment, and other initiatives aiming to use technology to better serve low-income adults have not met their intended outcomes as they did not sufficiently understand the supports many learner-workers would need. Or if they did understand them, they have failed to make supports sufficiently accessible to help learner-workers access the internet and navigate the devices and intended technology solutions.

> *"How, when, and where learner-workers can get high-quality help accessing and learning to use the technologies of today and tomorrow must agilely integrate into the lives of all in communities across the country. Together, employers, educators, service providers and the public sector must innovate and collaborate to ensure equitable opportunities for economic mobility and digital resilience for all."*
> ***Wendi Copeland, Chief Mission and Partnership Officer, Goodwill Industries® International***

Increased and sustained investment is essential to meet the vast need for supports for digital inclusion and digital skills development. It's needed to scale effective instruction and practices; to innovate and maintain new, accessible delivery models to fill persistent gaps; and to adapt them over time to enable the development of digital resilience across the workforce.

Increasing Access to Technology and Digital Skills Development

For the 90% of learner-workers with low literacy who can't attend formal, often more intensive adult education programs, we must create flexible, convenient opportunities to expand their access to critical supports increasing their access to technology and digital skills development opportunities. We must also support diverse organizations who touch the lives of learners-workers, whether as employers or business and service providers, to use human-centered design to develop new, accessible delivery models and to implement them effectively in different contexts.

Meeting the scale of need will also require increased investment by diverse stakeholders in digital inclusion efforts as well as in infusing supports for technology access and digital skills development into other programming as a way to increase impact. Some leading employers are already investing at scale in digital skills training, but more will need to be done to optimize impact, and especially for frontline workers with lower digital skills who are most likely to be left out of employer-sponsored training.

As an increasing array of stakeholders invest in and provide accessible delivery models for digital skills development, Digital US will support and elevate their efforts. The coalition will serve as a clearinghouse for evaluating and sharing effective practices and breaking down silos that exist between stakeholders and funding streams to align efforts for greater impact.

Meeting Learner-Workers: Where and When?

Increased availability of Wi-Fi and portable devices (e.g., laptops, tablets), coupled with the portability of software through cloud computing means that supports for technology access and digital skills instruction can be expanded by freeing it from the walls of classrooms and computer labs. Providers have the opportunity to support learner-workers virtually and/or meet learner-workers at locations they already frequent by inviting learner-workers to bring their own devices to and/or lending out devices at such locations and ensuring Wi-Fi access.

Ingredients to Expand Access to Instruction

Places	+	Devices	+	Time	+	People

What Most Services Look Like

Places	Devices	Time	People
• Classrooms	• Computers	• Multiple months	• Formal instructors

Ingredients That Can Increase Access:

Places	Devices	Time	People
• Drop-in labs • Community spaces • Workplaces	• Laptops • Tablets • Mobile phones	• Few weeks • Short workshops • Drop-in supports	• Career coaches • Social workers • Corporate trainers • Tutors/volunteers • Peer instructors

Retail stores, coffee shops, health clinics, community centers, and even parks could be used for technology access and offering personalized drop-in supports for learning new technology skills. Some libraries have developed effective models for this—with many leaning on volunteers for greater impact—that could be expanded to accessible locations in underserved neighborhoods.

Working through our community and business partners, Digital US is designing and will pilot new models for scaling personalized supports for technology access as well as digital skills instruction through the use of "digital navigators." Digital navigators are trained staff or volunteers who help learner-workers secure internet access and/or devices and start to use them to help them meet their goals. Those goals can include using an online learning program to reskill, access services, apply for a job, support their children in school, and more. The navigators coach participants in-person at drop-in locations or virtually (through phone hotlines or online chats/meetings) using techniques intentionally designed to develop the confidence and abilities needed to become agile, lifelong learners of new technologies, an essential component for digital resilience.

Embedding Digital Literacy in Other Supports

Social service providers of all types could support digital literacy skill-building as they help program participants to access information and benefits online. Programs that offer education, health, housing, family engagement, immigrant integration, financial and other services must leverage the in-person touchpoints they have with learner-workers to help expose people to the power of relevant technologies, help them gain access to the internet and devices, and access supports for digital skills.

At a minimum, these programs can set up a process to refer learner-workers to other "digital navigator" services. But they also have the chance to go one step further: embedding digital literacy skills development more intentionally into their own programs so that learner-workers develop their digital acumen within relevant contexts.

> *"Few organizations receive funding specifically for digital inclusion. But whether they are a parent center at a school, a civic engagement organization, a health clinic, or an employer, organizations must recognize that integrating supports for digital inclusion into their existing programs is critical to improving outcomes."*
> ***Amy Sample Ward, CEO, NTEN***

Supporting diverse organizations to select and implement technology tools into their service delivery is essential for ensuring millions more learner-workers have opportunities to start to use technology tools and develop digital resilience. Digital US is working to support organizations—including adult education institutions, community colleges, American Job Centers, and community-based organizations—to embed digital navigator inclusion services, digital skills instruction, and blended and distance education into their existing programming and to leverage effective technologies to increase impact. We also advocate for and aim to support inter-agency collaboration on digital inclusion efforts across diverse social service funding streams at both federal and more regional levels.

Partnering with Employers for Access

Hard-to-reach, frontline and low-income workers, who often juggle multiple jobs and family responsibilities, can also be reached at scale at their places of work. But this model is more than just an opportunity—it's becoming a reality. As employers increasingly integrate technology into their operations and human resources systems, employers and affiliated unions and worker organizations are increasingly aware of the need. Now they're interested in offering workers both essential digital skills training and pathways to more advanced technical skills. Employers also see opportunity in digital learning for reskilling their workforce and are aware that many workers will need supports for technology access and for learning to use online learning programs.

Digital US is working with employers and labor-management partnerships to develop delivery models, skills frameworks, curriculum and other resources needed to make effective investments in digital skills training and digital inclusion efforts. Some are working to increase broadband access in underserved communities and rural areas, increase capacity of libraries and other service providers to shift to virtual delivery models, and offer technology training online and communities in which they work.

Digital US will convene employers to share new models and best practices in increasing access to technology and digital skills development opportunities, explore new technologies and products, and help strategize on helping millions of more learner-workers build digital resilience.

Digital US

Spotlight on Promise:
Access to Technology and Digital Skills Development

Building Skills Partnership | This training collaboration between the SEIU janitors' union and employers in California provides digital skills training **at worksites** and in neighborhood locations such as **coffee shops** and offers drop-in smartphone workshops.

Byte Back | Offering courses in Washington, DC, and Maryland, this nonprofit provides a pathway of inclusive tech training that leads to living-wage careers, largely to underserved communities of color. It's looking to expand its reach to new areas of the country.

National Christina Foundation | Cristina Foundation has launched a nationwide call for surplus computers from corporate or governmental sources. This site matches donors with nearby refurbishers, who in turn prepare and distribute the equipment at low- or no-cost.

Employer-Sponsored Learning | Increasingly, employers offer industry-specific digital skills training to their employees, such as Tyson Foods, Nationwide, AT&T, Boeing and employers highlighted in Markle Foundation's **Digital Blindspot report**.

Free Online Learning | Courses such as **GCFLearnFree**, **DigitalLearn.org**, **Microsoft Digital Literacy** and **Microsoft Learn**, **Google Applied Digital Skills** and **Grow with Google**, and **Learn My Way** expand access to and provide resources for digital skills training.

Learning in Personal Communities | University AME Zion Church in Palo Alto recently launched **Tech Team**, where volunteers teach digital skills during weekly worship with basic computer skills development through classes and drop-in lab times.

New American Workforce | This National Immigration Forum initiative helps businesses assist employees in citizenship and **English language learning** and trains frontline workers in digital skills to use a learning app it developed to teach English.

Public Libraries | As trusted and welcoming community hubs, the nation's 17,000 public libraries **play a critical role** in providing access to the internet, devices, and digital skills training, including through drop-in **Learning Lounges** and **Learning Circles**.

Students as Trainers | A growing number of programs, including **Providence Public Library**'s Digital Literacy Corps and **Mutual Housing California**, train program graduates to teach digital skills, expanding the diversity of instructors and building job experience.

Tech Goes Home | This nonprofit **with initiatives in five cities** provides training to help learners of all ages use the internet and computers. It also provides directories, localized curriculum, and guides to common digital tools and resources.

Urban League | This civil rights organization enables black and other underserved urban residents to develop technology skills through local affiliates like Digital Skills Labs. One of its affiliates in **Springfield, MA** has opened a computer lab to prevent undercounts in the 2020 Census due to digital divides.

Wash & Learn Initiative | Organizations such as **Libraries Without Borders** and the **Laundry Literacy Coalition** provide spaces for internet access and learning digital skills in nontraditional locations in the community—such as laundromats.

Improving Effectiveness of Instruction and Supports

Diverse organizations and employers, both big and small, would benefit greatly from national sharing of research and best practices in instruction and assessment in developing both essential technology skills and digital resilience.

"The learning sciences tell us a lot about how to teach effectively, and educational technology can help learners explore new knowledge in engaging ways," Brandon Olszewski, director of research at International Society for Technology in Education (ISTE) points out. "It's past time to move away from chalk and talk to learner empowerment."

Through project-based learning and practicing how to problem-solve using technology, learner-workers develop confidence and capacity to make use of technology tools for a particular task and develop digital information literacy skills. Adoption of the ISTE standards by some programs shows a shift in the field toward teaching digital skills in ways that develop comfort, courage, and skills in problem-solving and foster digital resilience when learning new technologies. However, more research is needed to determine what instructional strategies are most effective with whom and in what contexts.

Digital US will convene a working group of researchers representing diverse stakeholders who don't regularly collaborate across sector silos to share research findings and expertise and collaborate on further research. In this way, Digital US will serve as a research hub for academics; employers; technologists; technology and product developers; practitioners, including members of the Open Door Collective; and adult learners themselves, through VALUEUSA and worker organizations. These groups will work together to better understand what works—and with whom and in what contexts—for developing digital skills and resilience as technology and skills requirements shift over time.

To scale adoption of proven practices and delivery models and support programs to adapt them to their local contexts quality, accessible professional development opportunities are essential. Digital US is developing an online repository to meet this need. We will compile relevant resources that may be known to a certain type of service provider for sharing across different silos of stakeholders in the education and employment ecosystem, including with employers. Digital US is bringing together diverse employers, industry groups, and various providers of digital skills training to create standard definitions and frameworks for digital skills that will be shared on this repository.

In their recent Digital Blindspot report, the Rework America Business Network (RABN) of the Markle Foundation encouraged companies to focus on digital skills and made the case that clearly defining and assessing digital literacies—and building opportunities to further develop them—is a both business and social imperative.[47]

> *"We see first-hand, from our work on-the-ground in states across the US, the importance of helping workers gain new skills in order to get good jobs in the digital economy. Making it quicker, easier and more affordable to acquire those skills is key to opening opportunities and helping our workforce adapt to the new economy."*
> ***Beth Cobert, CEO Skillful, a Markle initiative***

Common frameworks and skill definitions provide a venue for the private sector to collaborate and reach agreement on skills needs and what constitutes digital resiliency. Since pathways for digital skills tend to wind across firms, sectors, and industries, this consensus is critical to enable training providers to curate and develop matched content; training methods; and micro-credentials, badges, and other ways to memorialize competencies.

With clear definitions and alignment on competencies:

Educators can:	Employers can:	Learner-workers can:
• Assess students for digital readiness • Teach in-demand skills • Validate competencies via credentials • Guide students to relevant opportunities	• Define competencies they need • Assess and validate competencies of employees and new hires • Create clear talent pipelines and career paths • Partner with service providers	• Find programs that offer the digital skills they need • Develop in-demand skills • Demonstrate competencies for assessment and placement • Earn credentials to validate their competencies • Be "screened in" to opportunities based on skill acquisition

Digital US will work along with community and business members to convene leading employers and industry associations, unions, government leaders, training providers, and other stakeholders to develop common skills definitions and frameworks.

Digital skills represent a wide spectrum, starting with digital literacy and advancing to being a digital generalist. Increasingly, foundational skills in data science and analytics, cloud computing, and AI are also part of the digital resilience umbrella. Digital US will serve as a central hub for such skills frameworks, ensuring they meet quality requirements, are validated, and stay current, and provide seamless pathways from lower to higher level skills development. The coalition will leverage existing efforts such as those by the Rework America Business Network, the Business-Higher Education Forum, and the Greater Washington Partnership.[48]

A notable effort to define skills and competencies needed for digital and data analytics-enabled workers is Project DARE (Data Analytics Raising Employment).[49] It's a collaborative effort led by Asia-Pacific Economic Cooperation (APEC) and co-chaired by the Business-Higher Education Forum and Wiley that used the private sector to commonly define the foundational data science and analytics (DSA) skills needed for the emergent digital economy. Subsequently, 13 governments, training providers, and companies have all used the competency frameworks to inform regional training initiatives and shape government policies to close skills gaps.[50]

Spotlight on Promise:
Effective Instruction and Supports

CAST | Provides Universal Design for Learning (UDL) guidelines for ensuring learning is accessible to anyone, including digital learning. The **National Center for Accessible Educational Materials** (AEM) provides support for the development and use of accessible materials and technologies.

Correctional Education at Ashland University | Ashland University is a leader in **supporting other educational institutions and associations** such as the **Correctional Education Association**, to provide distance learning opportunities within correctional settings.

CrowdED Learning | Working with standards frameworks in multiple subject areas, CrowdED Learning builds freely accessible **learning resource repositories** from multiple content providers that are aligned to specific skills, **including digital skills**.

Educator Micro-credentials | With partner organizations, Digital Promise offers an educator microcredential ecosystem to increase competency in digital skills instruction, including **Introducing Digital Literacy Tools, Creating Digital Citizens**, and **Digital Equity**.

Goodwill Digital Career Accelerator® | In partnership with Google, this **nationwide program** provides tiered digital skills training to workers along a continuum of five skill levels, ranging from pre-entry to mid-level job-specific digital skills.

Frameworks for Adult Learners | Maryland's framework defines essential digital skills for adult learners at all levels, and the Seattle Digital Equity Initiative's **digital skills comparison framework** helps to inform policy, design, and curriculum development.

Northstar Digital Literacy Assessment | This **online program** is used in more than 800 test locations across the U.S., providing 12 free digital skills assessment modules, with fee-based licenses adding an aligned curriculum, independent learning, and issuing of certificates.

PD in Adult Education | LINCS of the U.S. Department of Education, **IDEAL Consortium** of states led by the EdTech Center @ World Education, and **Coalition of Adult Basic Education (COABE)** train programs and facilitate discussions on technology integration and digital skill development.

SkillRise | This **ISTE initiative** provides resources, including a framework and online course, to support the planning, implementation, and sustainability of edtech solutions to prepare learner-workers for the careers of today and tomorrow.

mLearning Initiatives | The **Adult Literacy XPRIZE** challenge competition funded by Barbara Bush Foundation for Family Literacy and the Dollar General Literacy Foundation and the resulting **Move Forward with Mobile Learning** initiative support programs to implement mLearning.

Tech Integration Coaches | Texas's adult education professional development provider, **TRAIN PD@TCALL**, has designed a gamified training and badging system—the Tech Integration Coach Pathway—to help state staff improve instruction through technology.

UpSkill America | This **initiative of the Aspen Institute** recognizes employers that invest in their frontline workers and promotes adoption of effective policies and practices used by employers to educate and train frontline workers **including investing in their digital skills**.

Designing an Equitable Ecosystem for Digital Resilience

Creating large-scale change will require large-scale shifts to current approaches and policies, levels of investment, and innovation to develop new delivery models to expand access to technology inclusion and digital skills development.

It will also require unprecedented levels of collaboration to advance digital equity. Today, siloed funding and limited coordination across employers, education and service providers, government, philanthropy, technology developers, and other stakeholders impacts learner-workers' ability to pursue digital learning and upskilling opportunities.

Digital US will connect stakeholders in a collective impact effort to advocate for and develop a more equitable digital training ecosystem. We will support and innovate with these critical stakeholders to put the needs of learner-workers first and build critical on-ramps and pathways to support all of US to have career opportunities and build digital resilience.

Ecosystem for Digital Resilience

In which stakeholders invest in technology access, digital and lifelong learning skills, and pathways to digital resilience **and also...**

Employers

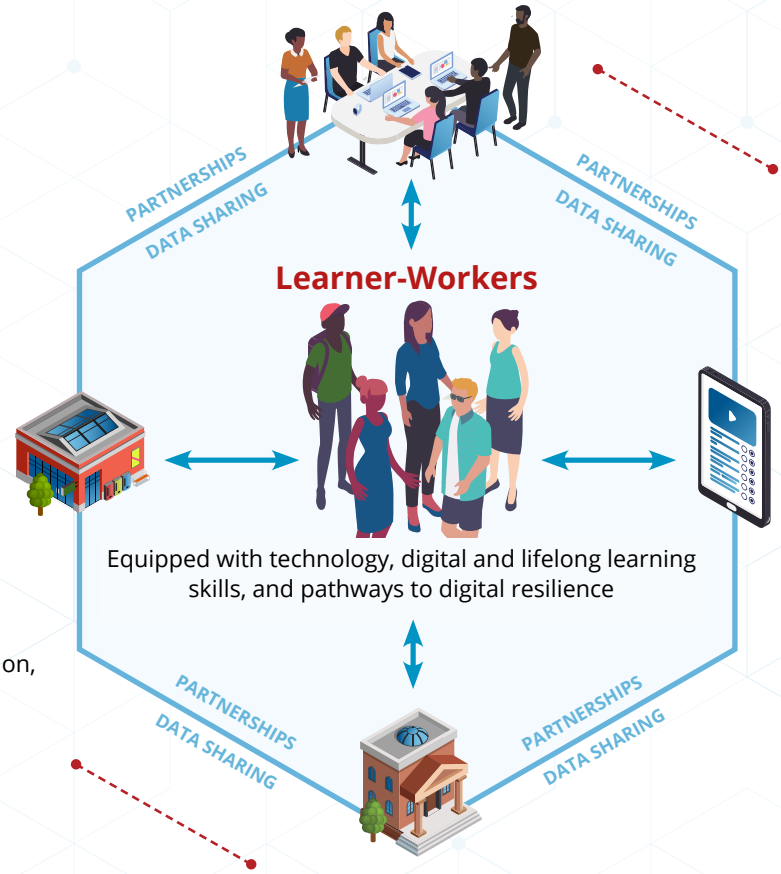
Create opportunities for their employees and communities to build digital skills

Develop partnerships and leverage technology to diversify and grow talent

Education & Service Providers

Expand access to digital skills development through new delivery models

Leverage technology to improve service outcomes



Government and Philanthropy

Invest in research, innovation, and capacity building for digital inclusion and skills development

Tech Developers

Partner to create products that meet the needs of all learner-workers

Building a more equitable ecosystem may require stakeholders to rethink existing processes around sourcing, hiring, and promoting talent. Digital US partners, including the Markle Foundation's RABN, Opportunity @ Work, and the U.S. Chamber of Commerce Foundation, are helping companies put skills at the center of their talent practices, opening doors to those who historically have been left out by traditional gatekeepers such as degree requirements.

Employers often overlook a largely invisible talent pool of over 71 million workers without four-year degrees but who have proven skills and potential to excel at in-demand jobs, according to a report by Opportunity @ Work that describes such individuals as "Skilled Through Alternative Routes (STARs).[51] Says Opportunity @ Work founder Byron Auguste,"We must leverage technology to give STARs a way to show their skills and find the opportunities for which they are ready. This will help employers leverage the talent, promise, and drive of STARs, who reflect our country's racial and regional diversity."

To make the shift away from traditional proxies for skills, companies will need new ways of gathering information on the skills of applicants. Individuals will need both the digital tools and the digital acumen for taking ownership of their own data and making informed decisions about educational opportunities, career pathways, and ways to most effectively pursue their goals.

> *"Now more than ever, we need to collectively build towards a future where all of US have the confidence to use technology and data to solve our problems, where institutions put procedures aside and focus on people, and where our leaders are more oriented toward opportunities than obstacles."*
> ***Josh Copus, Director, JFFLabs***

The U.S. Chamber of Commerce Foundation is taking an active role in catalyzing development of the underlying framework to support these shifts through its **T3 Innovation Network**.[52] "Along with our partners, we are creating the infrastructure needed to document and share skills, wherever they are learned, and create a more transparent and equitable talent marketplace," says Joshua Westfall of the U.S. Chamber of Commerce Foundation. "But doing this will all depend on workers and the organizations that serve them having foundational skills in digital literacy and how to use data effectively."

It will take diverse players—including technologists supporting the U.S. Chamber of Commerce Foundation's T3 Network initiative, companies in the Rework America Business Network, and training providers and government—to make the shift to a skills-based paradigm. But this is only the first of many similarly complex changes that will need to take place to support an equitable ecosystem.

That's why Digital US will work to convene and foster critical dialogue between employers, education and workforce providers, policymakers, philanthropists, technology developers, and community organizations to support a systems-level approach to supporting digital skills development.

Together, we're identifying changes in investment and practice that partners and their constituents can implement under existing policies. We're championing innovative collaboration across agencies and funding streams for the provision of workforce and social services through support for

an existing federal interagency working group on closing digital skills divides. And we're identifying federal, state, and local policies and regulations that must change to create an ecosystem for digital resilience.

The diversity of Digital US partners ensures a rich policy discussion. Leveraging the expertise and initiatives of our partners—including the National Skills Coalition (NSC), the National Digital Inclusion Alliance (NDIA), the Coalition on Adult Basic Education (COABE), and employers—Digital US will help find synergies in the policy recommendations of its diverse partners and development new ones.

At more regional and local levels, Digital US will look to partner with the Institute for Educational Leadership and other partners to convene diverse stakeholders. Including local affiliates of our national partners and leading employers, to strategize on programmatic and policy solutions for closing pressing digital equity gaps.

"We are excited to work through Digital US and with the U.S. Department of Labor and other partners in APEC to create a national policy agenda that advances digital readiness for all Americans."
Andrew Tein, Vice President, Wiley

Spotlight on Promise:
Building an Equitable Digital Ecosystem

American Broadband Initiative | An initiative supported by the National Telecommunications and Information Administration (NTIA) that promotes collaboration through a working group between 25 federal agencies on strategies for increasing efficiency in government broadband programs.

Broadband for America's Future: A Vision for the 2020s | This Benton Foundation report details how public policy can help support high-speed broadband to close digital divides and strengthen the economy and communities.

Citywide Digital Inclusion Initiatives | Some U.S. cities, including Austin, Kansas City, Seattle, and Portland, adopted digital inclusion plans on behalf of disadvantaged residents, and the COVID-19 crisis has catalyzed many more cities to deploy efforts to increase internet and device access.

Digital Equity Act | Legislation was introduced in Congress in 2019 to authorize federal funding to expand and extend access to high-speed broadband and the tools, training, and other resources needed to live, work, and thrive in the digital age.

Digital Literacy Boot Camps | Pennsylvania announced $5 million for technology boot camps to help adult learners develop digital literacy skills and commissioned research exposing the need for rural broadband investment for providing access to online learning.

Employment Technology Fund @ JFF | This fund supports entrepreneurs and technologies to scale the impact of products that remove barriers for U.S. adults who struggle to find meaningful employment. Technologies are highlighted in a field testing report and on WorkforceEdTech.org.

Everyone On | This national organization works to connect low-income families to affordable internet access service, computers, and training. Since 2012, through Connect Home and other initiatives, it has connected over 700,000 people in 48 states.

IMLS | Through $50 million for digital inclusion included in the federal stimulus CARES Act, the Institute of Museum and Library Science will issue grants to enable libraries and museums to expand digital network and technology access and to provide technical support services.

National Association of Workforce Boards (NAWB) | This membership organization's local convenings on the future of work have revealed concerns regarding lack of broadband access and digital skills, which will inform its advocacy on the expected reauthorization of WIOA legislation.

National Digital Inclusion Alliance | A leading advocate for tech inclusion, NDIA connects service providers to each other and to resources, including a Digital Inclusion Guidebook and compilation of low-cost internet plans and state and local initiatives.

National Governors Association (NGA) | Serving as the voice for governors, NGA collaborates on Future Workforce Now to help states develop forward-thinking workforce policy and practices. Its forthcoming state action guide recommends investing in digital skills and gives state examples.

National Skills Coalition (NSC) | This broad-based coalition issued recent policy recommendations for improving digital literacy. NSC hosted a Congressional briefing on digital skills gaps and shared industry fact sheets for various industries.

Digital US

Conclusion

All of US benefit when everyone can contribute to their fullest at work and in the community. To drive economic recovery and unlock opportunity for all of US, we must support digital skills development for all learner-workers, including the 32 million Americans who can't use a computer and the half of all Americans who aren't comfortable learning online.

Millions now out of work will need to leverage technologies for the first time to reskill, search for and apply for a new job, or start a small business. Others will have to upskill quickly to help their companies survive by leveraging new digital strategies to increase efficiencies or even ensure core business operations are possible.

At the turn of the twentieth century, a shift to compulsory high school helped provide the talent needed for roles in an increasingly industrialized America. Today, the vast need for digital skills represents a similarly urgent challenge in need of a similarly radical solution.

"We've made the kinds of big bets that drive major social change before, and we can do it again," says Chike Aguh, ISTE future of work fellow, and senior principal at the McChrystal Group. "As leaders, we need to take significant action immediately to create equitable opportunities so everyone can develop digital skills and access sustainable career pathways."

Together, we need to design, build, and scale the on-ramps and supports needed by millions of adult learner-workers in the U.S. to improve their digital skills and readiness and access pathways to grow their digital acumen and take on increasingly sophisticated technical roles. Doing this will require connecting the efforts of myriad stakeholders, sharing best practices, and catalyzing the investment necessary to make these changes. Digital US serves as this connective tissue, bringing all of the players together to co-create solutions and amplify successes. Through Digital US, we can collaborate to develop systematized solutions to expanding access, unlocking potential, and building the digital resilience of all of US to thrive not only in today's world of work, but also tomorrow's.

Whether you're a business or community organization,

we invite you to join US in these critical efforts.

Learn about our current work and partners at www.DigitalUS.org and tell us how you can be instrumental in building a more equitable digital future.

Contact US

Digital US is a national collective impact initiative with World Education, Inc. providing the coordination of partners and backbone support services.

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