

Literacy, Technology, Community: The Importance of Smart Technology in Workforce and Adult Education

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Introduction

Access to technology is no longer a privilege. Rather, it is a prerequisite for full participation in 21st century, high-quality education and workforce training opportunities. Be they clients, candidates, participants, students, patients, emerging or incumbent workers, or businesses looking to maintain their workforce competitive skill edge, the ability to access educational material online is critical to moving the United States forward in terms of economic development and academic attainment.

In today's competitive global economy, the pace at which education and training is being delivered to students, young and old, is increasingly at an unprecedented rate. Students worldwide have access to Massive Open Online Courses (MOOCs), online resources and curriculum, and the ability to learn anytime, anywhere, and on any device. Consequently, the demands that are placed on our education and workforce systems require all stakeholders to teach to more rigid standards, incorporate programs of study that are industry aligned, and be driven by the local and regional needs of employers. As course and training materials shift to meet the acceleration demands of the Workforce Innovation and Opportunity Act (WIOA), struggling students often find themselves further behind and tethered to the classroom.

The upskilling of adults must include the combination of “literacy, numeracy, and English language as well as employability skills required for participation in modern workplaces and contemporary life [and are] a shared responsibility of, and value and benefit to, the entire community.”¹ However, barriers exist that prevent many adults from obtaining the services they truly need to be successful in today’s job market. The Workforce Innovation and Opportunity Act identifies the following distinct groups with barriers to employment:

1. Displaced homemakers
2. Low-income individuals
3. Indians, Alaska Natives, and Native Hawaiians
4. Individuals with disabilities, including youth
5. Older individuals

¹ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

6. Ex-offenders
7. Homeless individuals, including children and youth
8. Youth who are in foster care or who have aged out of foster care
9. Individuals who are ELLs, have low levels of literacy, and individuals facing substantial cultural barriers
10. Eligible migrant and seasonal farmworkers
11. Individuals within two years of exhausting lifetime eligibility under Part A of Title IV of Social Security
12. Single parents, including pregnant women
13. Long-term unemployed populations
14. Such other groups as the governor [of each state] involved determines to have barriers to employment

WIOA has created an opportunity for service providers to work together in ways never before possible, and through this collaboration and cooperation, have a greater impact on communities than ever before. The U.S. Department of Education notes, “Because the negative effects of low skills ripple through society and the economy in so many ways, raising skills can pay substantial dividends for individuals and families, business and industry, and communities at large.”² Literacy is no longer relegated to the adult education classroom, industry specific skills training is no longer the sole obligation of community colleges or career and technology education (CTE) programs, and job placement no longer rests solely on the shoulders of the workforce system.

The provision of literacy instruction through emergent technology is the key to successfully educating the people in our communities and therefore creating a stronger more employable workforce. Access to technology, be it a laptop, a smart phone, or a tablet, has increased to the point where significant numbers of people can now engage in educational learning experiences and workforce training using a “bring-your-own-device” model of service delivery. We need to utilize and exploit the computing technology that is already in the hands and pockets of today’s 21st century learner. This model needs to be expanded throughout the education and workforce systems in order to meet the demands of the Workforce Innovation and Opportunity Act.

²U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

Literacy

In the United States, more than 30 million adults do not have a high school diploma and 20% of U.S. adults with a high school diploma have only beginning literacy skills.³ A recent Organization for Economic Co-operation and Development (OECD) study found that 36 million adults in the United States have low skills, scoring below Level 2 on literacy assessments.⁴ This equates to one in six adults having low literacy skills, and one in three adults having low numeracy skills. The United States routinely places behind countries such as Japan, Australia, Korea, Canada and the United Kingdom on international measures of academic attainment, such as the PIACA Study released by the OECD in 2013.⁵ These numbers reflect poorly on the employability skills of the U.S. labor force, and underscore the need for literacy instruction.

Other studies have ranked the United States 21st in numeracy and 16th in literacy out of 24 countries in a recent assessment of adults' skills, leaving the United States in need of an overhaul of how we reach and teach adults in the workforce.⁶ This compounds the fact that there are educational waiting lists for adult education classes in most, if not all, 50 states. In fact, two-thirds of U.S. adults scored at the two lowest levels of proficiency in solving problems in technology-rich environments.⁷ Yet, the publicly funded adult education system is able to serve only slightly over 2 million adults per year.⁸

Adult education is an economic imperative. Full-time workers with a high school diploma earn almost \$10,000 more per year than those without a diploma. If they have some college, but no degree, they earn \$14,000 more on the average. College graduates working full-time earn about \$17,500 more a year than high school graduates.⁹ Adults without a high school diploma are more than twice as likely to be living in poverty as high school graduates and over three times more likely to be unemployed than adults with college degrees. By 2018, 63% of all U.S.

³ www.worlded.org/WEIInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

⁴ Organisation for Economic Co-operation and Development. (2013). Time for the U.S. to reskill? What the Survey of Adult Skills says, OECD Skills Studies. Paris, France: OECD Publishing. Retrieved from http://skills.oecd.org/Survey_of_Adult_Skills_US.pdf.

⁵ <http://www.oecd.org/site/piaac/surveyofadultskills.htm>

⁶ www.worlded.org/WEIInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

⁷ www.worlded.org/WEIInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

⁸ www.worlded.org/WEIInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

⁹ www.worlded.org/WEIInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

jobs will require education beyond high school. Yet, nearly half of the U.S. workforce—about 88 million of 188 million adults aged 18 to 64—has only a high school education or less, and/or low English proficiency.¹⁰

The Workforce Innovation and Opportunity Act (WIOA) reflects an understanding that workforce development is a system and that literacy is an integral part of that system. The infrastructure and operational components of that system require a high degree of planning intended to maximize the investments of federal, state and local monies. Workforce Development Boards (WDBs), as the center of the planning for workforce in a region, are called upon to maintain four (4) foci; the effectiveness and the efficiency of the workforce development system and the qualities of equity and access for individuals to gain skills and compete in their regional labor markets.

WIOA has mandated education providers to work with employers to identify and spread best practices for education, training and credentialing of front-line workers to help with their job progression. Examples of these practices are employers paying for their front-line workers' college education, identifying clear internal pathways, providing career counseling and coaching, offering on-the-job training that leads to career progression, and providing access to online and technology-enabled education tools so workers can develop their basic and technical skills.¹¹

WIOA supports the use of technology for the improvement of teaching, learning, professional development, productivity, and system efficiencies. The definition of *workforce preparation activities* describes new allowable activities for programs funded under WIOA Title II. *Workforce preparation activities* is defined as “activities, programs, or services designed to help an individual acquire a combination of basic academic skills, critical thinking skills, digital literacy skills, and self-management skills, including competencies in utilizing resources, using

¹⁰ www.worlded.org/WEIInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

¹¹ <http://sites.ed.gov/octae/category/wioa/> Accessed: February 21, 2016

information, working with others, understanding systems, and obtaining skills necessary for successful transition into and completion of postsecondary education or training, or employment.¹² This definition specifically names digital literacy among the list of programs, activities, or services that comprise workplace preparation. WIOA also references the Museum and Library Services Act of 2010, which defines digital literacy as “the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information.”¹³

WIOA also calls for the acceleration of student progress through education and workforce preparation programs. This does not mean that courses should be shortened, but rather that content should be delivered in a way that layers the required instruction. Rather than spending one semester in a welding course and the next semester in an ESL course, programs should be offering contextualized instruction in a simultaneous delivery system such as the I-BEST model. Technology can assist with this delivery model, and allows students to learn at their own pace, often outside the traditional academic setting. A strong emphasis is placed on ensuring that state and local providers offer adult education and skills development, including career pathways, to accelerate achievement of diplomas and credentials, but most importantly, to become a partner in their children’s education and improving their family’s economic futures.¹⁴

Technology

According to the Ambient Insight 2012-2017 Worldwide Mobile Learning Market, Longitudinal Trends, 74 percent of people use mobile devices for e-learning.¹⁵ The convenience and accessibility of mobile learning allows learners to digest and engage with the information anywhere, anytime, and on any device. The explosion of online and on-the-go learning tools

¹² <http://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/integrating-technology.pdf>

¹³ <http://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/integrating-technology.pdf> Accessed: February 28, 2016

¹⁴ http://www.nawb.org/documents/Publications/WIOA_Overview.pdf Accessed: February 21, 2016

¹⁵ www.trainingindustry.com/learning-technologies/articles/how-mobile-learning-is-shaping-the-workforce.aspx

offers new avenues to reach youth and adults ready to skill up when the resources and content provided are connected to real educational and career opportunities.¹⁶

According to a 2015 Pew Research Center report, nearly two-thirds of Americans are now smartphone owners, and for many these devices are a key entry point to the online world.¹⁷

Smartphones are used for much more than calling, texting, or browsing the internet. Users are turning to mobile devices as they navigate a wide range of life events:

- ❖ 62% of smartphone owners have used their phone in the past year to look up information about a health condition.
- ❖ 57% have used their phone to do online banking.
- ❖ 44% have used their phone to look up information about a place to live.
- ❖ 43% to look up information about a job.
- ❖ 40% to look up government services or information.
- ❖ 30% to take a class or get educational content.
- ❖ 18% to submit a job application.

Lower-income smartphone owners are especially likely to use their phone during a job search. Compared with smartphone owners from households earning \$75,000 or more per year, those from households earning less than \$30,000 annually are nearly twice as likely to use a smartphone to look for information about a job — and more than four times as likely to use their phone to actually submit a job application. This is also the segment of the population that is most likely to access adult education and workforce services under WIOA.

Similarly, “smartphone-dependent” users are much more likely to use their smartphones to access career opportunities. Sixty-three percent of these smartphone-dependent users have

¹⁶ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

¹⁷ www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/ Accessed: January 30, 2016

found job information on their phone in the last year, and 39% have used their phone to submit a job application.¹⁸

Young adults (85% of whom are smartphone owners) are also incorporating their mobile devices into a host of information seeking and transactional behaviors. About three-quarters of 18-29 year old smartphone owners have used their phone in the last year to get information about a health condition; about 70% have used their phone to do online banking or to look up information about job; 44% have consumed educational content on their phone; and 34% have used their phone to apply for a job.¹⁹

“Today there are 2.6 billion smartphone subscriptions globally, and while growth has been levelling off in developed markets like the U.S. and Europe, it’s not stalling altogether by a long shot. By 2020, globally there will be 6.1 billion smartphone users led by huge growth in less mature markets. And with 6.1 billion smartphones in circulation, we will see a tipping point of sorts: smartphones will finally overtake the number of active fixed line subscriptions worldwide in 2020.”²⁰

Millennials, who now constitute the largest segment of the American workforce, are accustomed to managing their lives and jobs on their smartphones. A 2014 Nielsen survey found that more than 85% of the 53.5 million millennials in the workforce own smartphones. But the word “own” doesn’t really convey the relationship between millennials and their mobile devices.²¹ In a 2014 report, millennials ranked their smartphones as more important than deodorant or toothbrushes.²² This demonstrates where smartphones fit into the daily routines of a large portion of the United States.

A growing number of people do everything on their smartphones. We shop on Amazon, we order food via Seamless, we hire taxis through Uber or Lyft, we connect via Facebook, Twitter,

¹⁸ Pew Research Center, U.S. Smartphone Use in 2015.

¹⁹ Pew Research Center, U.S. Smartphone Use in 2015.

²⁰ Ericsson Monthly Report, June 2015

²¹ <http://www.onshift.com/blog/mobile-millennials-and-workforce-shuffle>

²² <http://nypost.com/2014/07/07/millennials-smartphones-are-more-important-than-deodorant/>

Facetime, and Snapchat, we blog, text, and read the news. Rather than being a novel, new technology, our smartphones are now part of a daily expectation of how things work. A young person whose smartphone does everything but make toast is not going to be impressed when you say, “Welcome aboard. Your schedule is taped to the wall in the break room.”²³

In 2015, Tyton Partners, with the support of the Joyce Foundation, published Part 1 of a report entitled, “Learning for Life: The Opportunity for Technology to Transform Adult Education.”

Among other findings, the report, which drew on a survey of more than 1,000 adult education facilities nationwide, specifically notes:

- ❖ “Technology infrastructure is strong across the adult education system; more than 80% of survey respondents reported consistent access to the Internet and on-site availability of computers”
- ❖ “Most adult education program instructors reported that they are comfortable using technology and believe they have the ability to leverage technology in a professional setting; fewer than one in five adult education professionals feels that technology can be challenging or difficult
- ❖ “Investing in technology is a budget priority for the majority of program administrators, even as funding constraints limit their ability to pursue more robust technology investments
- ❖ “Almost 90% of adult education programs leverage free, open educational resources to support instruction; these technology solutions are more prevalent and are viewed as more important to instruction than any other type of instructional technology solution
- ❖ “At least 55% and as many as 75% of adult education students own smartphones, and the majority of program administrators and instructors believe that these devices have the potential to improve engagement and instruction”²⁴

The opportunities and challenges for the U.S. workforce system in utilizing technology are enormous. Not unlike other industries that are heavily regulated, the pace of technology advancement outpaces the ability of governments to adopt new policies and new utilization

²³ OnShift, September 4, 2015

²⁴ *Learning for Life: The Opportunity for Technology to Transform Adult Education*, Part 1. Tyton Partners, 2015

approaches. Around the world, governments are eschewing the investments in brick and mortar to focus on expanding broadband capacity and reach. In the U.S., broadband access is still an issue in many parts of the country, denying the American workers and businesses the core fabric of our economic model; finding the *best*. In the 1800s, Thomas Carlyle admonished the British Luddites who were trying to hold back the expansion of American made products into the United Kingdom by suggesting the effort was better spent in producing the *best*. The world would always have a market need for the *best*. The U.S. post-secondary system has been recognized for a longtime as the world's *best*. We export the capabilities of our universities to other nations and yet here in the U.S., the lack of access, funding, and broadband technology, coupled with arcane rules about who can be a training provider, hamper our workforce system and the workforce it's meant to serve.

Serious additional resources need to be committed to achieve the results that we know can happen and many other countries are already realizing; learning can happen anywhere and people anywhere can learn. Taiwan started universal broadband service in 2007, with Switzerland, Finland and Spain quickly joining the list. The United Kingdom has committed to providing every household with broadband by 2020. By accepting a bring-your-own-device model, both education and workforce training providers can extend their reach, increase service delivery, and leapfrog the need for hard-wired technology.

Infusing adult education and literacy instruction with technology-enabled solutions means cost savings in both the education and workforce systems. Allowing more open competition among providers allows workers and business to build skills and achieve market needed certifications and competencies at higher rates and lower costs. The added benefit is that this more open competition will also most certainly lead to innovation in learning. The greater reliance on technology, particularly with a bring-your-own-device model, will also stretch the capabilities of the staff that are in the workforce development system. Increased attention and resources need to be directed at capacity development. Increasingly, important learning resources used

by students and teachers are digital, making access to the Internet as basic as access to a library.

Access can refer to many things in this context, including the capacity of programs to serve more students; the Internet via broadband or wireless service; learning content at various literacy levels or in alternative formats; computer equipment, devices, and assistive technology; digital literacy; and more. Barriers to learning can exist when any of these are not available, convenient, relevant, or affordable.²⁵

In order to increase access to high-quality education and training, the *Ready to Work* upskilling effort aims to stimulate new investments in an online skills academy that will use technology to offer open online courses of study to help learners earn credentials through participating accredited institutions.²⁶ WIOA makes it clear that the teaching and training workforce must adapt to the rapidly evolving adult skills reality, such as the growing emphasis on college-and career-preparation, emphasis on transition to credit-bearing college-level coursework, new high school equivalency exams linked to rigorous college-and career-readiness standards, career pathways and integrated teaching models, employer engagement, and requirements for technology integration.²⁷ Local WDBs will have a tremendous opportunity to create innovative strategies to focus on employer engagement; strengthening of core programs; dissemination of best practices; and promoting effective use of technology to enhance service delivery.²⁸

Community

Educational attainment levels have an impact on communities. Not only from an economic perspective, but also by impacting the makeup of families. Raising educational attainment levels of adults in the labor force creates better educated workforces as a whole, which results in stronger economic growth and higher wages. “At the regional level, research has found that

²⁵ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

²⁶ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

²⁷ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

²⁸ http://www.nawb.org/documents/Publications/WIOA_Overview.pdf Accessed: February 21, 2016

increased educational attainment not only makes workers more employable but also has the ripple effect of creating demand for complementary, entry-level workers and promoting entrepreneurship.”²⁹

Impressively, research has shown a strong motivation for low skilled Americans to advance. Forty-two percent of adults scoring at Level 1 on the OECD survey, and 32% scoring below Level 1, already participate in education and training.³⁰ Given the waiting lists that exist across the nation, if more services were available, even more adults would enroll and take advantage of the opportunities to upskill. With limited capital available for infrastructure improvements, such as brick and mortar facilities and hardware purchases, the bring-your-own-device model is the most viable option to increase performance outcomes.

Increasing the academic and workplace skills of parents also has a trickle-down effect to their children. Most adult learners are parents and primary caregivers of school-age children, be they in elementary or high school. The better educated adults are, the better informed they are in terms of health literacy, financial literacy, digital literacy, and information literacy which leads to a stronger demonstration of critical thinking skills. When parents are more engaged with their own education process, “their children appear to have improved language and reading skills.”³¹ Many parents are motivated to return to school simply because they want to be role models for their children and to assist in their children’s school success.

The level of adult skills have also been shown to impact healthcare costs. The United States would save more than \$17 billion in health care costs over the course of the lifetimes of each class of dropouts had they earned their high school diplomas.³² “Adults with limited health literacy are hospitalized and use emergency services at significantly higher rates than those

²⁹ Berger, N. & Fisher, P. (2013, August 22). A well-educated workforce is key to state prosperity. Washington, DC: Economic Policy Institute. Retrieved from www.epi.org/publication/states-education-productivity-growth-foundations.

³⁰ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

³¹ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

³² Alliance for Excellence in Education. www.all4ed.org Accessed: January 31, 2016.

with higher skills. Reversing that trend is estimated to generate savings nationally of between \$106 and \$238 billion annually.”³³

In 2012-13, 37% of adults enrolled in adult basic education were unemployed and 33% were employed; the rest were not in the labor force. Enrollments in adult education skyrocketed across the nation during the recession as adults were laid off and unable to find new jobs.³⁴ This is compounded by the fact that every year, more than three million youth drop out of school.³⁵ They join the 6.7 million youth between the ages of 16 and 24 who are neither enrolled in school nor participating in the labor market. When they decide to complete their education, they enroll in adult education. Additionally, by 2030, nearly one in five U.S. workers will be an immigrant.³⁶ English Language Learners (ELL) are one of the most rapidly growing populations across the nation.

An increase in skills expands access to employment and better paying jobs. This, in turn, creates new demand for products and services at the local and regional level. “Because consumer spending is a principal driver of U.S. economic growth, increasing access to work and better pay benefits not only individuals but also business and industry.”³⁷

WIOA seeks to increase innovation – innovation in how the system works collaboratively to serve both business and jobseekers; innovation in increasing opportunities for the most marginalized populations, especially those with disabilities, to access competitive employment; and, innovation in how we use technology to increase the prosperity of workers (both urban and rural) in America.³⁸ By utilizing smart technology, that allows access to educational and workforce content on any device, anytime, anywhere, service providers are able to reach more people, in more communities, in more industry sectors than ever before.

³³ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

³⁴ www.worlded.org/WElInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

³⁵ www.worlded.org/WElInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

³⁶ www.worlded.org/WElInternet/us/adult-ed-facts.cfm Accessed: January 23, 2016

³⁷ U.S. Department of Education, Office of Career, Technical, and Adult Education. (2015, February). *Making Skills Everyone’s Business: A Call to Transform Adult Learning in the United States*. Washington, D.C.: Author.

³⁸ www.nawb.org/documents/Publications/WIOA_Overview.pdf

By raising literacy rates, workplace skills, numeracy rates, and English language proficiency, service providers create a ripple effect that can be felt across the entire economic spectrum. However, the question remains, “How can the educational and workforce systems achieve this utilization of technology?” Two systems are actively engaged in finding the answer to this question: Central Adult School, in Fresno, CA, and the O’ahu Workforce Development Board in Honolulu, HI.

Central Adult School, Fresno, CA

Planning, innovation and implementation with fidelity in areas of technology are an area of focus now at Central Learning Adult School Site (CLASS). In the past, CLASS relied heavily on face-to-face bookwork for Adult Secondary Education (ASE) classes, English as a Second Language (ESL) and Independent Study (IS). Technology was limited to students as they were assigned student access codes to a canned math and English intervention program.

In July of 2015, a new direction emerged regarding ASE, ESL, and IS. Past practices of face-to-face and interventions were still in place, but after a program evaluation using a strategic planning model, CLASS accelerated into a new way of thinking and instruction. Upon the program evaluation, it was determined that a comprehensive approach with consistent analytics would be implemented to best guide adult education programs. Some of the ideas put into practice include co-teaching, flipped/blended classroom techniques, a comprehensive data system and the use of Google applications.

Adult education at CLASS now consists of additional teachers in the ASE classrooms who help in the utilization of learning stations. ASE instruction within the classroom coincides with the tests offered at the site. CLASS now offers both HiSET and GED high school equivalency tests. They have currently contracted with a software company that uses a HTML 5 platform. This in turn gives the site the ability to use instructional software on any laptop, tablet, Android or iPhone. Classrooms will be set up with mobile laptop carts so that each student has access to technology at school. The option to access software in this manner opens up the possibilities

for the students and staff alike. Additionally, the software being used gives the principal access to data to better inform instruction and retrieve evidence for quarterly face-to-face and electronic data chats.

Current planning includes curriculum maps, flipped and blended instruction and increasing student curricular stamina. All ASE, ESL, and IS students assigned a log-on have the ability to work on assignments, enrichment and intervention as they wish, anytime and anywhere. A majority of the students do not have internet at home, but a significant amount have internet access through their smartphone. This minimizes the excuse that a student does not have access to the internet at home.

Teachers are also being trained in Google products (forms, websites, blogs, hangout, etc.) in order to better communicate with the principal and each other. Google docs are an efficient and free platform for teachers to communicate in real time. Real time sharing of data is a capability offered where both part-time and full-time staff can communicate. Professional development and staff trainings are being developed to support teacher development. Ongoing training for staff occurs through support systems such as Outreach Technical Assistance Network (OTAN³⁹), CalPro⁴⁰ and site development. All methods have been instrumental with free or minimal cost training which forces the user to use technology. The option of using such products allows both the morning, night and part-time staff an opportunity to communicate and share ideas. A few years ago, this would not have been the case. Technology has changed the way we do the business of education.

While the demands of the ever changing job market occur, the ultimate plan is to increase adult students' capacity in 21st century job market and academic skills through face-to-face and distance learning. Critical thinking, digital citizenship, reasoning and the ability to apply concepts are areas where students can benefit from a new technology-focused method of

³⁹ www.otan.us

⁴⁰ www.calpro-online.org

instruction. The current timeline to implement such practices fully at CLASS is two years. Within this time, attention to hiring practices, improving infrastructure and understanding the capabilities of our software will be refined.

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Innovation, in and of itself, has become a vibrant and promising job sector. In this year's State of the State address, Hawaii's Governor Ige stated, "For those who haven't noticed, innovation, fueled by technology, is driving the global economy at breakneck speed. We simply must create an economic environment that enables Hawaii's entrepreneurs to turn ideas into products and services so that we can compete in today's global economy . . . More importantly, innovation is not just a technological phenomenon. It crosses all industries, including agriculture, fashion, 'media and design,' clean energy, and healthcare. And it creates good paying jobs that keep our best and brightest here where we need them."⁴¹

President Obama recently selected Hawaii's High Technology Development Corporation (HTDC) along with 14 others to join the national TechHire initiative to train the workforce for technology jobs. "TechHire is a bold multi-sector initiative and call to action to empower Americans with the skills they need, through universities and community colleges but also nontraditional approaches like 'coding boot camps,' and high-quality online courses that can rapidly train workers for a well-paying job, often in just a few months. Through the collaboration of employers, training providers, and workforce and economic development organizations, TechHire communities have been using data and innovative hiring practices to expand non-traditional hiring, building accelerated training programs that prepare individuals in months instead of years, and connecting people to jobs with hiring on-ramp programs. Over the last year, these communities have trained and placed thousands of people into high-paying tech jobs"⁴²

⁴¹ <http://governor.hawaii.gov/newsroom/governors-office-news-release-governor-iges-state-of-the-state-address/>

⁴² <https://www.whitehouse.gov/issues/technology/techhire>

The designation as a TechHire community signifies Hawaii’s commitment to developing a technology workforce through accelerated methods to meet the growing demand,” said Robbie Melton, executive director and CEO of HTDC. “This is one step in moving Hawaii towards the goal of creating 80,000 new tech and innovation jobs earning \$80,000 or more by 2030.”⁴³

O’ahu WorkLinks, the American Job Center (AJC) operator on the Hawaiian island of O’ahu, provides a variety of services to island residents including providing support to the TechHire designation. Included in these are employer resources such as recruitment assistance, training and outplacement, job seekers services such as job training, financial assistance and career guidance, and youth services such as life skills, education and job training.⁴⁴ O’ahu WorkLinks serves a diverse population, many of whom require educational services in addition to workforce guidance.

“Here, and at eight other AJCs in Hawaii, veterans receive priority of service, working one-on-one with specialists to improve their resumes, learn tips on networking and interviewing, connect with training, and find a job,” notes O’ahu WorkLinks manager, Erick Pascua.⁴⁵

Workplace educational programs traditionally focus on literacy and basic skills training that workers need to gain new employment, retain present jobs, advance in their careers, or increase productivity. Instructional curricula are developed through a joint effort of educators working with employers and employee groups who all strive to determine what reading, computation, speaking, and reasoning skills are required to perform job tasks effectively. Successful efforts to institute workplace education programs require strong partnerships among educators, employers, and employees.⁴⁶

⁴³ *Pacific Business News*, March 9, 2016

⁴⁴ www.honolulu.gov/dcs/workforce.html Accessed: January 23, 2016

⁴⁵ blog.dol.gov/2015/07/07/a-gathering-place-for-hiring-veterans/ Accessed: January 23, 2016

⁴⁶ www.proliteracy.org/downloads/proliteracy_member-central-workplace-literacy-guide_proliteracy-workplace-literacy-guide.pdf

“Technology is really a core tool for all of us in the O’ahu WorkLinks one-stop and encompasses the very simple to the more complex,” said Erick Pascua, center manager. “Our business customers and job seekers can all connect to us via traditional email plus social media like Instagram, Twitter, and others. We even have a LinkedIn profile for our center.” For staff, smart technology lets them assist job seekers and business customers more effectively and efficiently. It connects staff to multiple employers at one time. It connects staff to electronic files, scheduling and testing software.”

The infrastructure of the O’ahu WorkLinks one-stop itself has evolved. Wi-Fi was once a “nice to have.” It is now an “essential to have” tool to improve customer service. Oahu WorkLinks provides Wi-Fi for customers within the center. This allows people attending workshops and briefings to connect with their own laptops, tablets and smartphones to download workshop handouts, power points and briefing materials. The “bring your own device” (BYOD) model bring technology to people on their own devices, and doesn’t require the center to be a hardware provider. Customers can follow along in live-time to instructions about websites. For those without their own tools, the center does have a computer lab from which people can search for jobs, write resumes, and fill out application forms. Computers have really taken the place of bookshelves filled with pamphlets and books, and smartphones are quickly replacing the traditional computer.

Once registered at the O’ahu WorkLinks center, customers may access some services from the comfort of their own home. This creates a “virtual” center that increases convenience and access for all customers. Hirenet is one service that can be accessed from outside the center. It is the state’s job bank and resume repository and once registered as a user, customers may access it from anywhere. Likewise, software that helps test and teach job skills can also be accessed from outside the center. These products include WorkKeys, My Future My Skills, Aztec and others. Clients simply use their logins at their convenience, but activities can be monitored and tracked.

Technology is more than hardware and software. Technology is also social media. “Social media is an effective way of reaching out to customers. It is an effective way to advertise our services,” says case manager Violet Fujita. “We use Facebook to spread the word about our latest activities with businesses and job seekers. We ‘friend’ other businesses to receive their updates and share them on our page for others.”

Other social media like Instagram and Twitter are also used to inform the public about center activities, news and upcoming events. The center also uses these sites to keep in touch with alumni of their programs. In doing so, they extend the feeling of “ohana” (family) with customers beyond their job search. Customers can keep in touch with staff and each other. This feeling of community is a real positive for all involved.

One challenge of connecting with customers is keeping updated on their contact information. Many times, phone numbers are changed, disconnected or even was really someone else’s number. “People change phone numbers, but they don’t change Facebook,” shared Cristal Garan, case manager. Having multiple ways of keeping in touch with customers is important in today’s fast paced world. Using their smartphones, customers can immediately see updates from us, including job leads, workshop registration and reminders of upcoming events.

The infusion of technology in O’ahu WorkLinks is not by chance. Research has shown that literacy includes the language of computers and that more than 70% of children would rather learn to program a robot than to speak a foreign language.⁴⁷ Coding is an international language of business. The very process of learning coding nurtures the kinds of skill sets employers covet. For these and other reasons, coding boot camps and certificate programs in computer programming have become quite popular and successful. Job seekers from diverse backgrounds have found new careers in coding with starting salaries providing much more than a living wage.

⁴⁷ <http://www.computerweekly.com/news/4500253031/School-kids-would-rather-learn-coding-than-a-foreign-language-says-Ocado>

Conclusion and Call to Action

1. Leverage Existing Technology: Federal funding, even when matched with state and local funds, will not provide enough resources to meet the needs of the communities we serve. We all need to leverage the existing technology resources in our communities, and this includes the delivery of educational and workforce training via the smartphones that are already in the hands of our clients to deliver anywhere, anytime, any device learning opportunities. It is a fact that technology is one of the strongest ways to facilitate upskilling populations whose demand outpaces the infrastructure serving them.
2. Adult Education Programs: Adult Education programs must embrace the anytime, anywhere, any device delivery of instructional curriculum. WIOA lists thirteen considerations states must utilize when selecting providers, including two that deal specifically with how such providers use technology. There is a huge cost and/or lack of revenue associated with the under education of adults. Eligible providers should demonstrate:
 - ❖ how they “effectively use technology, services, and delivery systems, including distance education in a manner sufficient to increase the amount and quality of learning and how such technology, services, and systems lead to improved performance;
 - ❖ that their “activities are delivered by well-trained instructors, counselors, and administrators...who have access to high quality professional development, including through electronic means.”⁴⁸
3. Workforce Development Boards: It takes a cadre of professionals to understand and make an impact in the complex labor market. As professionals, we must re-evaluate how we provide workforce training and educational services. Workforce development boards need to engage with emerging technologies to do their jobs better, align closer to the delivery

⁴⁸ <http://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/integrating-technology.pdf>

systems of their adult education partners, and eliminate redundancies in service provision between both the education and workforce training systems.

4. Implement Technology Policy: As policy makers, the President, and the Departments of Labor and Education have presented us with a great challenge in the Workforce Innovation and Opportunity Act. Workforce boards, which include members of the education community, are now responsible for tapping innovation and opportunity in their communities to drive positive social and economic change.⁴⁹ We cannot let our communities down and we owe it to our nation’s job seekers and businesses to live up to the opportunities this new legislation provides to our collective systems.

As Jan Bray, former Executive Director of the Association of Career and Technical Education, has stated repeatedly, “One of the biggest challenges we face is that we are preparing people for jobs that do not yet exist, using technology not invented yet, to solve problems we do not, as yet, know about.”⁵⁰ While WIOA fills many of the gaps that were present in WIA, it also calls on us to be innovative, to think about customer centered design, and to deliver services in new ways that meet the needs of an evolving society. “WIOA seeks to increase opportunities – opportunities for America’s businesses to fill their open positions with highly skilled-highly qualified job applicants; opportunities for individuals with taxing barriers to employment to access education and training that leads to employer recognized credentials and jobs that pay well; and opportunities to align the workforce system with social services, education, and economic development.”⁵¹

As educators and workforce development professionals, we all need to do our part to infuse technology into the learning experience of our students and clients. To achieve the multiple performance outcome measures required by WIOA and other initiatives, utilizing the technology that is already in the hands of learners is the only way to reach an economy of scale.

⁴⁹ www.nawb.org/documents/Publications/WIOA_Overview.pdf

⁵⁰ The Asia-Pacific Roundtable on Workforce Education, Jan Bray

⁵¹ www.nawb.org/documents/Publications/WIOA_Overview.pdf

Authors

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Ron Painter is the Executive Director of the National Association of Workforce Boards (NAWB). In his capacity as CEO of NAWB, Painter has traveled the country meeting with State and Local workforce leaders in an effort to identify cutting-edge practices and programs and understand how best to spread innovative trends in human capital development throughout the nation-wide job training system. Mr. Painter was the founding CEO of the Three Rivers Workforce Investment Board in Pittsburgh. Before joining the Three Rivers Workforce Board, he worked in Washington, DC, first with the U.S. Department of Labor for the Enterprise Project, and then for the National Alliance of Business. Mr. Painter holds an undergraduate degree in Political Science from Grove City College in Pennsylvania and a Master's in Public Administration and advanced graduate coursework from the University of Pittsburgh's Graduate School of Public & International Affairs, where he served as Adjunct Faculty.

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