Abstract

An independent report on the local community impact of Digital C’s 12-hour Basic Digital Literacy training program offered in partnership with the Ashbury Community Computer Center.

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Key Findings

25% of respondents claimed to have been motivated to participate in the RESTART program by their interest in improving their ability to age in place.

25% of respondents stated they were motivated to participate in the RESTART program to simply learn more about computers.

16% of respondents claimed to have been motivated to participate in the RESTART program by their interest in improving their employability.

13% of respondents claimed to have been motivated to participate in the RESTART program in order to prepare themselves to take online classes to further their education.

87% of respondents found the RESTART program VERY or EXTREMELY helpful to them in attaining their stated goal.

87% of respondents found the pacing of the class “just right”.

99% of respondents stated they would recommend the RESTART program to others.

92% of respondents said they would take additional classes through RESTART if they were offered.

18% of respondents report to be staying in temporary shelters.

48% of respondent seeking employment claim the RESTART program helped them to be better prepared for employment.

33% of employed respondents attribute their obtaining their current position to the training they received through the RESTART program.

67% of employed respondents are now using a computer for their jobs.

45% of respondent reporting to be in the workforce (not retired or full-time students) experience a positive workforce impact since participating in the RESTART program.

33% of respondents reported to have used the skills they acquired through the RESTART program to better manage their health.

22% of RESTART participants do not own an internet capable device of any kind.

26% of RESTART participants have no home internet connectivity.

Only 18% of participants claim to use the library for internet access.

42% of participants claim to have retaught the skills they acquired through the RESTART program to someone else.
What is RESTART?

DigitalC’s ReStart Program offers free digital literacy, technology skill building, certification and career preparedness courses for Cleveland’s underserved population. Courses have ranged from basic PC and internet navigation to more advanced certification opportunities. Through its partnership with CEOGC both Comp IT A+ and Internet Core Competency Certification (IC3) courses have been provided. DigitalC has also partnered with Classrooms to Corporations, We Can Code It and Towards Employment to offer Networking Fundamentals and Computational Thinking courses respectively. The full curriculum has included: Basic Digital Literacy, Computational Thinking, Microsoft Networking, IC3 and Comp IT A+ Certification. This report covers only ReStart’s Basic Digital Literacy Course.

Since its inception in June 2017, through a generous grant from The Cleveland Foundation, 291 students have graduated from ReStart’s Basic Digital Literacy classes offered in partnership with the Ashbury Senior Community Computer Center (ASC3). These classes have been offered at select facilities around the city. All graduates have access to the Lending Library at DigitalC’s MidTown Tech Hive which provides community members access to laptops and broadband.

Background

According to the recently released American Community Survey Five Year Estimates, out of 537,621 households in Cuyahoga County in 2017, there were 113,746 households that had no internet access of any kind. This was 21% of the total population. In the City of Cleveland, out of 168,496 total households, there were 52,610 without internet access of any kind – or roughly 31% of the population. While 20% of the (county) population alone should be enough cause for investment, if we drill down to the most disadvantaged communities – households with incomes less than $20k/year – the number soars to a whopping 48%.

The need to address the inequities presented by the digital divide is real and increasingly essential to participation in society. The first year of the American Community Survey, 2013, noted that 25% of Cuyahoga County had no internet of any kind, this number was reported to be 36% in the city of Cleveland and 41% for households under $20k/year. So, in 5 years, we have arguably made no marked improvement (the margin of error is 5%) in the number of households that continue to have no internet connectivity of any kind. These numbers are epidemic.

But there are models that have been shown to have made real and longitudinal impact on the unconnected population. In 2012, the Connect Your Community program concluded a 2-year effort to connect the unconnected and in doing so, provided 30+ hours of computer training, hardware and connectivity assistance through a network of community practitioners which resulted in over 5,500 total new internet subscribers and computer users in the cities of Cleveland and East Cleveland. In 2017, Connected Insights conducted a longitudinal study of these participants and was able to show that over 76% of first-time internet adopters maintained their connectivity over 6 years later. With a target of a little over 50,000 households, it is conceivable that a program on the scale of the CYC program could have reduced the unconnected numbers drastically over time.
While federal investment on the scale of the CYC program is unlikely in the future, what experience (and data) has shown, is that programs like RESTART and other local efforts are imperative to creating a community culture of technology readiness and adoption and that these efforts have far-reaching impacts for the individuals and households impacted. The result of these valuable community efforts can be seen in our workforce, our residents, and our children. With social and economic returns as far reaching as that demonstrated by the RESTART program, as well as historically by similar programs, we can’t afford to not invest in this critical area of need.

About the Survey

In January of 2019, Connected Insights designed and conducted a telephone survey of all RESTART participants. Follow-up included three callbacks to non-responding numbers, unless a hard refusal was given. In total, 108 individuals (37% of participants) completed the telephone survey. Designed by the author, the survey was administered in English and conducted by past digital inclusion training program participants who received specialized workforce training through the Ashbury Senior Community Computer Center (ASC3) in Cleveland, Ohio (prior to the RESTART program). The survey was administered using VOIP phone lines in a CATI lab setting and responses were digitally recorded by our trained representatives using a computer-programmed interface. The scientifically designed survey meets all criteria for statistical significance and is valid within less than a ±8% margin for the population (95% confidence interval).

Who Participated in the RESTART program?

Historically, digital Inclusion programs in Cleveland have attracted older adults. This is no surprise as this age cohort did not grow up with technology and so were not surrounded with the need for digital skills until much later in life. The majority of RESTART participants fit this criterion as well, being that the majority (70%) of participants trended older; over the age of 55.

![Participant Age](chart.png)

Additionally, little more than half of the participants (56%) of the RESTART program were male. This number trends slightly higher than the average population of Cleveland where men
make up 48% of the total population and only 44% of the population over the age of 55. 14% of participants report to be military veterans and another 7% claim to live with a veteran.

More significantly, 38% of respondents report to be disabled with just under 10% reporting to live with a partner who is disabled. This rate of occurrence is well beyond the 20% of the population in Cleveland reported to be disabled. Put another way, participants of the RESTART program are 18% more likely to be disabled than the average Cleveland resident. This may be an indicator that the presence of disabilities creates a larger incentive to be connected as it may benefit this population to a greater degree by offsetting limitations caused by an individual’s condition.

Additionally, RESTART participants trend towards being childless and single with only 6% reporting to be married and only 10% reporting to be the parent of a school-aged child. These numbers pale in comparison to the Cleveland resident average married status of 40% and the parental status of 31%.

Last, the RESTART program, which held 40% of their classes at local Cleveland-based shelters, unsurprisingly served a high number of participants living in temporary or unstable housing. 18% reported to be currently staying in temporary shelters, 22% reported to live in public housing, and just over 1% report to be temporarily staying with friends or family. If taken together, 41% of respondents report to have a transient living situation. This is a novel focus for a digital literacy program that has not been tried before, but that represents an interesting opportunity to longitudinally track outcomes among one of the most at-risk populations in the city.

All considered, the demographic profile of RESTART program participants aligns closely to that of other local digital inclusion initiatives both past and present with the exception of the focus on shelter inhabitants. With the audience for digital literacy and inclusion training consistently being older, low-income, single adults, the opportunity for continued impact is high. Currently in the cities of Cleveland and East Cleveland alone, there are 21,454 adults over the age of 60 living at or below the poverty line.

Motivation for Participation

The one overarching theme among participants of the RESTART program, (and other historical digital inclusion programs) is the issue of poverty. 76% of participants report to receive at least one type of assistance through a State or County-run program. That aside, poverty causes wide-reaching barriers to economic, social, political and physical well-being and success. Being that internet access represents access to so many different resources, the motivation for increasing digital skills and connectivity is often a mirror of the personal priority interests’ individuals are facing.

As more baby boomers reach retirement age, the term “Aging in Place” has become more prevalent. The U.S. Centers for Disease Control and Prevention defines aging in place as "the ability to live in one’s own home and community safely, independently, and comfortably, regardless of age, income, or ability level". We often think of Cleveland and NEO being exempt from these concerns as the prevalence of healthcare providers here is omnipresent. But, for those without significant retirement savings or social security checks, the alternative to losing independence is harrowing. Make no mistake, this is a problem of epidemic proportions. Digital literacy skills and home connectivity represent an alternative means for people to manage their needs through online interactions instead of the typically offline means. It means banking and paying bills online instead of taking trips to the bank or post office, it means having a virtual
doctor visit instead of traveling to the doctor’s office, it means ordering groceries or household needs online instead of struggling with heavy bags and public transportation in below-zero weather. The majority of us see these as significant conveniences, but to our senior, low-income population, it could be downright life-saving.

This theme is discussed directly by 34% of survey respondents who report to see acquiring digital skills and connectivity as a means of preserving their independence. This was the highest reported motivation across all respondents. Other motivations reported include 22% who were motivated by the potential of increasing their employability, 21% who wanted to increase their social interaction with family and friends, 17% who aim to prepare themselves to take online classes, and 6% who wanted to improve their ability to find and manage their health information online.

What was the MAIN reason you participating the the RESTART program?

- 34% To improve my ability to stay in my home and maintain my independence (age in place)
- 22% Increase Employability
- 17% To increase my ability to connect with friends and family online
- 21% To prepare myself to take online classes
- 6% Increase my ability to find health information online

Age in Place

The role of digital skills in supporting aging populations is an emergent question. While it is clear that participation in our society is increasingly shifting online, for those who did not grow up with online resources, and so do not see them wholly as central to their existence, digital literacy is often seen as a necessary evil. But necessary it is becoming. Unconnected aging populations are increasingly at a disadvantage when barriers of health and fitness are compounded with poverty. Add to this, the increasing pressures to engage online with supporting institutions in order to maintain services and needed communications from healthcare institutions, insurance companies, and social services and it is clear that seniors are in a tight situation. This awareness is evident in the 34% of respondents reporting to have been motivated to participate in the ReStart program by their need to maintain independence and “age in place”.

On the other end, hospitals are receiving pressure resulting from The Health Information Technology for Economic and Clinical Health (HITECH) Act to increase adoption of patient
health portals (PHRs) in order to increase patient engagement in healthcare decisions. This pressure is not only derived from a regulatory perspective but is also compounded by the desire to benefit from the incentive structure put in place by the act to reward healthcare institutions for increasing adoption of PHRs among their patient populations.

While this is a strain on seniors lacking digital skills to manage these emergent and prioritized systems, the end result is beneficial. Research shows that use of PHRs has been shown to improve the quality of care received. Add to this, the other many benefits of convenience that the internet provides, and one could see digital skills and access as imperatives for this vulnerable population.

But there is another potential benefactor to this scenario; State and County government. With the economic state of a region directly tied to population health and homeownership, it is to the great benefit of these actors to assist aging populations in acquiring access to resources that will prolong the need for state-funded elder care and maintain homeownership for as long as possible.

As low-income seniors age, the possibility of health factors creeping up that necessitate an assisted living situation increases. Those on Medicaid will pass those expenses onto the State. Additionally, if seniors were homeowners and become unable to maintain their homes independently, it is likely that they will sell that home in order to enter assisted living or to offset the expense of living with family that may or may not be in the same state. This creates the possibility of revenue loss from diminished property taxes, and/or population reduction. James Knickman, Vice President for Research and Evaluation for The Robert Wood Johnson Foundation estimates this economic crisis to culminate by 2030 during the peak of retirement for baby boomers. In order to offset the additional burden to our state and local social service structures, increasing digital skills and internet adoption among this population will be imperative.

**Health Impact**

Luckily, digital literacy efforts such as RESTART have shown promise in increasing digital skills among this population. Of all participants, 57% reported that their participation in the RESTART program helped them to improve their ability to find health information online. Additionally, 33% of participants report to have gone online to manage their health. In a recent (2018) study by MetroHealth researchers, basic digital literacy training was found to increase the rate of first-time patient-portal uptake by three-fold.

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But direct online management of healthcare resources is not the only health-related impact that digital skills can provide. For those separated by distance from friends and loved ones, social isolation can contribute to cognitive declines and depression. In a 2018 study, findings suggested that “being socially isolated in later life is associated with poor cognitive function. This has important implications for interventions, suggesting that targeting isolation may be beneficial for cognitive health”.

When asked, 60% of respondents to our RESTART survey claimed that the program made them feel more socially connected to their friends and family. Underscoring the importance placed on this dimension of value derived from digital skills, 52% of respondents reported that increasing their ability to connect with friends and family online was a significant factor in their participation in the program.

Digital Literacy as a Source of Economic Opportunity

In an age where YouTube personalities are common household names and side hustles are an economic necessity, it is no surprise that 14% of RESTART participants have used their new-found computer skills to start an online business or are considering doing so in the near future. Another (unduplicated) 7% report to have sold items online. Together, this means that just under a quarter (21%) of participants are finding ways of using their computer skills to increase their income outside of traditional employment!

Employment Impact

While supplementary income made online is a buoy to any household, with most jobs posted online, employment in general is increasingly hard to find without digital skills. While 45% of RESTART participants report to be a member of the workforce, only 11% report to be employed part-time or full-time. Of these, 67% report to use a computer for their job.

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Interestingly, 22% claim to be telecommuting from home – something that could not be done without significant digital skills and connectivity.

Positive employment impacts have long been correlated with participation in digital literacy training and the RESTART program is no exception. 30% of participants (unduplicated) in the workforce (not retired or a full-time student) report to have experienced a positive workforce impact defined as getting a new job, getting a better job, having a pay increase, entering a job training program, being given a promotion or started a business. Moreover, 33% say the RESTART program enabled them to obtain their current position.

Use of Social Services

Highlighting the intersection of poverty and digital literacy programs, is the prevalence of social service use among program participants. 76% of all participants (unduplicated) are enrolled in at least one service with 51% alone receiving food assistance and 57% on Medicaid.

In Cuyahoga County, and in many other states and counties, social service participation can often be managed online. The value of doing so to the individual is avoidance of lengthy office visits, parking fees and/or call-center hold times (which can be upwards of 4 hours in Cuyahoga County). The value to the service provider, the county in the case, is a reduction in the number of times a case needs to be touched by a case manager, improved information accuracy, and overall cost-savings realized in efficiencies that can result in improvement in service quality.

Connectivity

The value of digital literacy skills to the individual as well as the community cannot be overstated. There are few areas of impact more far-reaching and beneficial as those provided by digital inclusion programs. But the ultimate value of acquired skills cannot be realized without access to reliable and robust internet connectivity and affordable devices. Luckily, participants of the RESTART program report to be slightly better connected than the average Cleveland resident\(^6\) with only 26% of program participants claiming to be without home connectivity. Of the unconnected participants, 52% cite cost as the main reason for their not having a home connection. Another 19% claim it is their inability to obtain an affordable computer. Perhaps more disturbingly however is that 10% report that they live in an area where they are unable to get access at their home\(^7\).

\(^6\) The 2017 ACS survey shows that approximately 30% of Cleveland residents are unconnected.

More encouragingly however is perhaps the higher reported rate of device-ownership which at 78% of all participants indicates a high-level of digital readiness. But though device ownership is prevalent among program participants, 17% report to only have a smartphone and no other internet-capable device. This means that more than a third (37%) of respondents who claim to own devices rely solely on their smartphones for access. It is pertinent to note that this cannot be seen as full connectivity as many of the benefits of internet access cannot be realized fully on a mobile device.

Community Access to Internet

Home internet connectivity is the ideal (no doubt), but when home connectivity is not an option – due to cost or access barriers, where do people go for access? While 19% of the unconnected rely on libraries, it turns out that those unable to get internet access at home, more often, than not, do not go in search of access. Nearly twice the number reporting to rely on libraries, 38% of those without a home internet connection, report to not use the internet at all.
Those reporting “other” were asked to explain. Of these, most responded with some type of public Wi-Fi location – including one that said “casino”. If we understand the “other” field to be free local Wi-Fi, and combine these responses with the “public Wi-Fi”, we see a new emergent category of internet users – 33% that rely on open, unsecured, Wi-Fi offered in the community. This trend also greatly overshadows the use and reliance on libraries (free open WIFI is used 14% more often!).

While the availability of open WIFI networks is a great asset, for those that rely on them for their only source of access, it should be noted that open networks carry security risks; placing the most disadvantaged populations at a higher risk for identity theft or other data breaches such as password theft. For those savvier and more cautious, this may serve as a disincentive to use the internet for some of the higher-value activities such as online banking and communicating with a hospital or doctor about sensitive health information.
As one might imagine, those with their own home internet access are most likely to predominantly access the internet from home. But in addition to this, we see that home-connected respondents are more likely to use a greater range of locations for internet access.

**Participant Satisfaction**

Overall, the RESTART program was well-received with 99% of all participants reporting that they definitely or probably would recommend the program to others. Another 92% reported that they definitely or probably would take additional classes through the program if they were offered in the future.

The pacing of the classes was also well-received with 87% of participants stating that the pace of the class for “just right”. Only 7% felt the class pace was too fast, and another 5% felt that the class was too slow.

Community outreach played a large role in participation in the program with 37% of participants being recruited into the program by a staff member or other representative of the program. Another 26% learned about the program from a friend or family member. What we more surprising however, is the extent to which classes organically contained participants that had some relationship to one another. 67% of all participants reported to have known other people in their class – more than twice the number of participants recruited by a friend or family member!
Pay it forward

One finding that is continually supported by data, is the trend of program participants reporting to “train forward” their newly acquired skills to others that did not participate in the program. 42% of all participants report that they have trained others on the skills they acquired through the RESTART program. This means that for every 10 people trained through the RESTART program, 4 more acquire the skills taught to the participants! This shows that digital literacy training programs contribute to a better-connected community by serving as a catalyst for the use of technology throughout participants’ social networks.

Conclusion

The RESTART program was successful in creating the expected outcomes we have seen from other historical programs. Time and again, we come to find that Digital inclusion is a unique field that provides measurable outcomes across a wide spectrum of social verticals. In an era where connectivity is ubiquitous, and society increasingly is leaning towards the cloud in search of smart initiatives that connect the public and private worlds with a hope for creating efficiencies and improved service delivery. Digital Inclusion organizations and programs are the super-connectors of social service sector. They are the pathways on which meaningful integrations can be built and the vehicle through which next-generation smart solutions will be equitably adopted.