1. Summary

Community Tech Network (CTN), which was founded in 2008, has become a leader in the field of digital equity with its well-established, multilingual digital literacy curricula and competent bilingual trainers who have successfully helped reluctant learners enter the digital world.

CTN was selected in August 2022 as one of three organizations to provide digital literacy training as part of the California Department of Aging’s Connections, Health, Aging and Technology (CHAT) program. The purpose of this pilot project was to explore how to mitigate loneliness and isolation for older adults (65+) and adults with disabilities (18+) by empowering them to use technology.

The pilot program, which ran until June 2023, supported an estimated 4,000 low-income or disabled older adults in California by providing them with internet-enabled devices (iPads), internet access, and digital skills training. All of these services were provided at no cost to program participants.

An estimated 500 of the CHAT participants across five California counties were to be referred to CTN to receive personalized support to help them learn to use their devices.

This report reflects upon CTN’s participation in the CHAT program and identifies important ways to build on this work for future digital equity initiatives by discussing recommendations and lessons learned.

2. Background and Problem Statement

Nearly 22 million (42%) Americans over the age of 65 do not have high-speed home internet, or broadband, and Black and Latino older adults are 2.5 and 3.3 times more likely to lack this vital service.

The digital divide, which is defined as the gap between those who have access to technology and those that do not, affects older adults across the entire country, including in California, where almost one in four (23%) older adults are offline. Disabled individuals (27%) and low-income households (29%) throughout the state are also disproportionately digitally unconnected. When we consider the intersection of age, disability, race, and income, the digital divide takes on a more complex dimension. It becomes evident that a substantial portion of older adults who fall into the non-white, low-income, and/or disabled categories confront distinct digital access disparities.

Promoting digital equity and inclusion to combat this issue is crucial, because the internet can greatly

1. Although the CHAT program was meant to serve both older adults (65+) and adults with disabilities (18+), it primarily supported older adults because that is who agencies typically referred due to their own lack of assistive technology to support the devices.
improve individuals’ well-being. In fact, the Federal Communications Commission recognizes that broadband access is a “super” determinant of health.

In addition to empowering individuals to obtain health information, schedule telehealth appointments, and even order their groceries online, the internet also enables them to keep in touch with loved ones. Technology use has been shown to decrease loneliness and improve well-being among adults 65+, which is especially important at a time when more than 2 million older Americans suffer from depression, which is exacerbated by social isolation.

Community Tech Network was founded to transform lives with digital equity services. Since its inception, CTN has provided digital literacy training and devices to adults of all ages in public libraries, low-income housing developments, senior centers, schools, and social service agencies. We primarily serve older adults and individuals from marginalized communities, including those who have recently experienced homelessness, are not English-speaking, or who live in high-poverty areas, such as the Tenderloin in San Francisco. We also host pop-up events to provide tech support and help folks sign up for low-cost internet.

During the COVID-19 pandemic, we expanded our programming by creating Home Connect, which offers remote, one-on-one, digital skills training to older adults. This training taught older adults how to access key services (such as online grocery shopping and telehealth) without having to leave their homes, which was especially needed during the pandemic. We continue to offer this remote training, and it has allowed us to reach many homebound and disabled learners, as well as those from rural communities.

In all our programs, we’ve shown individuals how to make video calls and see their children and grandchildren that have moved to other states. We’ve helped folks who felt completely alone build community online and find others with similar interests on platforms like Facebook. We’ve also served immigrants living in the US who, thanks to technology, have finally been able to connect with their relatives and close friends that still live in their home country.

“One older adult was eager to learn how to send emails. She wanted to stay in touch with her daughter, who had relocated to another country. Previously, she struggled to reach out to her daughter due to the challenges posed by different time zones. She expressed that discovering this new means of communication, enabling her to connect with her daughter independently, was truly heartwarming.” - Hyewon Park, Korean bilingual instructor

Overall, since 2021, 70% of CTN’s learners who have participated in Home Connect report feeling less lonely. Several Home Connect participants have even shared that, before learning to use the internet,
the mail carrier used to be the only person with whom they would typically interact on a given day.

“*I’m waiting on Walmart to deliver groceries to my door which I ordered online on my iPad. This saves me money each month. Tomorrow I take my iPad into my first day on my NEW JOB. I’m also using the iPad to improve my health care insurance...I renewed some library books online, too, so I don’t get fined which saves me money as well.*” - CHAT program participant

The California Department of Aging (CDA) was thrilled to use CTN’s extensive experience delivering digital equity services to help even more folks across the state through the CHAT pilot program as a means to continue reducing social isolation among low-income and disabled older adults.

“*Most participants wanted to learn about technology because they didn’t want to be left behind. They were feeling excluded anyway, but having the choice and the tools to contact their friends and relatives was a big benefit.*”

- Freddy Piedrahita, Spanish-bilingual CHAT instructor

3. Workflow

The workflow consisted of a coordinated effort between: the CDA, the Area Agencies on Aging, training providers (such as CTN), a survey contractor, gerontology researchers at the University of Southern California, AT&T, and the learners to be served.

Identifying Learners

The California Department of Aging administers programs that serve older adults, adults with disabilities, family caregivers, and residents in long-term care facilities. These services are provided locally by Area Agencies on Aging (AAAs) throughout the state.

In 2021, the CDA officially launched the CHAT program by inviting the 33 California AAAs to refer clients to be surveyed about their social isolation and other social determinants of health. This survey was part of a larger University of Southern California (USC) research project on interventions to reduce social isolation in older adults.

The AAAs identified candidates through their existing social service programs and informed them about the opportunity to receive free devices, technology courses, and data plans for six months. Agencies could then conduct the survey or refer the older adults to a survey contractor who would do so.

After the surveys were completed, the CDA confirmed with the AAAs that the candidates were eligible to receive an iPad.

Device Distribution

Approved participants received an iPad (with an activated SIM card and limited data plan) directly from the AAA, who was responsible for distributing all devices and retrieving them at the end of the pilot program.

“This is a great device. I wish I had one earlier.”

- CHAT program participant
Learners contacted the data plan and tech support provider, AT&T, to get their devices configured in their preferred language. With the learner’s permission, AT&T also installed the AnyDesk app on the iPad.

**Pre-Training Assessment**

After the devices with data plans were distributed, the CDA sent participants’ names and contact information to Community Tech Network from six northern California AAAs (Alameda, Contra Costa, San Francisco, San Jose, Santa Clara, and Sonoma).

At this point, each participant would be paired with a CTN instructor that spoke their preferred language. They could choose between English, Spanish, Mandarin or Cantonese, Vietnamese, Korean, Tagalog, or Russian.

The instructor would call the learner to confirm their interest and their mailing address. CTN then mailed participants a Learner’s Booklet, which included basic iPad instructions and exercises that could be used to follow along with the technology class curriculum and practice even beyond the classes.

These booklets were available in different languages and were designed by our team of experts to meet different cultural needs. (For example, Chinese-speakers may be interested in learning to use the app iQIYI to stream shows and movies, while Spanish-speakers might be more interested in watching telenovelas on an app like Telemundo.)

The package with the Learner’s Booklet included a welcome letter with the instructor’s name and contact information for the learner’s convenience.

During the initial phone call, instructors conducted pre-training assessments to gauge the learner’s comfort with technology and their skill level, as well as their availability. This information was used to design a unique training plan for the learner, based on their needs and interests.

Phil Schutt, CHAT digital literacy trainer, explains, “I find it crucial to meet each learner where they are at. I have learned that developing a more individual approach and determining a learner’s specific goals helps form a relationship and more conducive learning opportunity.” Freddy Piedrahita, a Spanish-bilingual instructor agrees, saying, “Assessing [the learners’] interest level allowed me to adjust my teaching to a more personalized approach so they could stay focused and motivated.”

Hyewon Park, a Korean-bilingual digital literacy trainer adds, “Older adults in the CHAT program show varying levels of digital literacy needs. While many need to learn from the basics, some express an interest in acquiring more advanced skills. I am committed to assessing each learner's digital knowledge level and tailoring our curriculum to meet their specific needs.”

Each learner was offered up to five hours of one-on-one personalized, virtual classes and/or the opportunity to join drop-in, online group Q&A sessions to receive tech support.

**Digital Skills Training**

Classes were typically virtual. Instructors would call the learner over the phone and inform them how
Some learners were complete beginners and did not know how to turn a device on. Others already had some basic technology skills.

Many learners appreciated the remote format, as they were able to attend the classes from the comfort of their own homes. However, arrangements were sometimes made for in-person training if the learner preferred that and if a local CTN instructor was available.

Since a lot of the training was virtual, it allowed homebound individuals and those who live in very remote, rural areas to still participate. CTN’s Digital Equity Program Director, Kari Gray, says, “[This program allows us] to reach rural clients that may live hours away from a computer lab and not otherwise have had access to such services.”

In the case of a missed class, the CTN instructor would try to contact the learner up to four times to reschedule. The AAA would then reach out to the learner after that in order to support CTN by following up with learners who were unresponsive.

Once a learner completed all five of their classes, they were invited to attend CTN’s virtual Q&A sessions for ongoing tech support. Weekly (Cantonese and Mandarin), biweekly (Spanish), and monthly (English) sessions are provided by CTN instructors and volunteers.

Connectivity

Participants received devices with data plans at no charge for six months. However, once those data plans expired, CTN helped learners continue to receive broadband Internet services.

As part of our work with CHAT, our instructors informed learners of the Affordable Connectivity Program (ACP), which is a federally-funded program that offers eligible, low-income households discounts on their monthly internet bills.

The instructors were available to guide participants through the ACP application process or to help them look for other low-cost internet options.

4. Data and Results

In total, the six partner AAAs with whom CTN worked sent 629 referrals who each received an internet-enabled iPad from the State of California’s Department of Aging. All of these individuals also received the CTN Learner’s Booklet with instructions to use their device.

Since a significant number of the initial 500 referrals declined our technology classes, the AAAs sent us 129 additional names. CTN was only able to contact 413 of these 629 referrals; some people were unresponsive to our calls and others responded to CTN outreach after the program had ended.

“The trainer helped me a lot. She was flexible and patient and answered all my questions.”
- CHAT program participant

“There was nonjudgmental teaching. [The instructor] didn’t make me feel inadequate.”
- CHAT program participant
Of those 413 folks who we were able to contact, 279 declined our one-on-one services despite expressing initial interest to their local AAA. 134 signed up for one-on-one classes, and another 68 either attended our tech support Q&A sessions or sought our assistance in acquiring low-cost internet.

In total, CTN provided 1,323 hours of digital skills training, connectivity advice, and Q&A sessions for 202 individuals. While some iPad recipients declined training, or only engaged in connectivity support and/or Q&A sessions, CTN saw many participate in up to 5 or more class sessions. Our trainers provided nearly 600 hours of classes. Their training sessions covered different digital literacy topics such as iPad fundamentals, camera, email, YouTube, Zoom, video-calling, phishing, and cybersecurity practices. The impact of the program in the lives of the participants was impressive.

According to a recent survey (March 2023), 100% of the CHAT participants who received classes from CTN said that they would highly recommend this program to others, and 80% said that they feel more connected to their families and friends after taking the courses.

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“This program helped me feel more connected to the world and my community.”
- CHAT program participant

“A couple that was very interested in taking the classes for many reasons, but the main one was to be able to communicate with each other when they were not together. They only had one phone and sometimes they couldn’t be in the same place. They wanted an extra device that allowed them to stay in touch for emergencies. The man had been diagnosed with a very aggressive prostate cancer and had to be in the hospital for treatments. Without a second communication device, they could not communicate while he was in the hospital. Once they learned how to use FaceTime and sync their iPhone to their tablets, they felt really accomplished.” - Freddy Piedrahita, Spanish-bilingual CHAT instructor

”[The CHAT program] was so important and valuable to me. My only complaint is I wish it never ended. My phone recently broke and my iPad was crucial in allowing me to connect with others while I got it fixed. FaceTime allowed me to stay connected with friends and family. I miss our lessons and wish we could do more.”
- CHAT program participant

9. Although, as mentioned above, even participants who elected not to receive one-on-one classes were still welcome to join these Q&A sessions.
10. See: https://communitytechnetwork.org/blog/fast-facts-on-the-affordable-connectivity-program/
5. Lessons Learned

CTN, the CDA, and the AAAs learned many lessons from the pilot program. These insights informed the next CDA digital equity programs and were shared with the University of Southern California for its research project.

Hopefully, these takeaways will also help other organizations as they build and implement their own unique digital equity initiatives.

Remove Barriers to Contacting Learners in a Timely Manner

Once individuals agreed to participate in the CHAT program, they were not offered their iPad and training immediately.

Due to lack of bilingual survey staff, many clients, especially non-English speaking ones, could not complete CDA surveys soon after their referrals and their device distribution was delayed.

Smaller AAAs’ lack of staff capacity also served as an obstacle to quick device distribution.

CTN then struggled to get in contact with learners. At this point, participants had already been interviewed twice (by the AAA and the survey contact person). Many were tired of answering the phone.

This was problematic, especially as Uhunoma Edamwen, CTN’s Digital Equity Policy and Program Manager who oversaw much of our involvement in the CHAT program, reports that due to with the high volume of initial referrals, “learners who did not respond to initial outreach attempts were sometimes overlooked as instructors moved on to more recent referrals.”

Overall, reducing time between device distribution and training is critical to keep the learners engaged and motivated.

There are several strategies to increase the success of the initial contact:

- Referral agencies can provide information about the learners’ availability to CTN.
- Referral agencies can remind participants about CTN services and directly introduce us to specific learners who may be more reluctant to respond to a phone call from an unfamiliar number.
- Referral agencies can provide the information about clients’ digital skill levels directly to CTN when the learners receive their devices.

Device Orientation And Training Should Be Required When Devices With Data Plans Are Distributed

Learners received their iPads from the AAAs prior to being referred to CTN or other training agencies. Folks were not required to participate in our technology classes in order to keep the device. New devices in hand, many simply ignored CTN’s calls or turned down our services. They may have assumed that they could get a family member to teach them how to use the iPad, or that they could learn on their own (especially if they already had a basic level of digital literacy).
Qiu advises “If possible, don’t send out the iPad before we do the intake, so the learners will have to connect with an instructor who can assess their digital literacy skills before they receive the device. It’s good for the client if they have an obligation to receive at least one hour of training. Many learners thought they were familiar with the device, but, to be honest, most of them are not.”

Confirm Program Details Before Program Begins

The workflow of any digital equity initiative should be fully fleshed out and communicated among all the relevant stakeholders prior to the program’s start. The CDA made several adjustments and clarifications to the program after it had already begun and both the AAAs and CTN had to communicate those changes to the learners. CTN frequently had to adjust its own workflow to accommodate new information.

For example, the devices were originally meant to be loaned to learners. Both learners and the AAAs were reluctant to participate in the program when they believed that the devices would have to be returned. However, in December, the CDA transferred ownership of the devices to the AAAs, allowing the agencies to decide whether the learners who received the devices would need to return them after training. The CDA later directly confirmed that all participants should keep their iPads. This allowed the agencies to recruit more clients, causing a referral surge at the end of the program, which put a strain on our instructors.

The CDA also adjusted the survey process. When some agencies didn't have the capacity to conduct the surveys themselves, the CDA identified a survey company to help. People who had signed up for the program ended up waiting months to take the survey and were discouraged and frustrated by the time CTN contacted them.

Additionally, CTN set up intake and activity forms for instructors to use. These forms would create records in the CTN Salesforce database and this data could be used to generate reports on intake status, the learning journey, and connectivity status for all participants. After several months, individual AAAs requested reports on their own clients (instead of one comprehensive report). It was straightforward to adjust CTN's reporting format by adding a “referral agency” field to the Salesforce record and creating reports for each agency. Moving forward, CTN has included the referral agency in all client records in order to generate reports for each agency.

Moreover, there were issues with and changes to the referral process. Initially, each AAA had their own referral spreadsheet, with a variety of formats, to send referrals to the CDA. After a few weeks, the CDA created a referral spreadsheet which was standardized for each AAA and the transfer of referrals from the CDA to CTN became much easier.

CDA staff capacity was also stretched thin by the large volume of early English-language referrals and struggled to forward referrals in a timely fashion. To accelerate the intake process, agencies would share their list of referrals to CTN directly (rather than waiting for the CDA to do it), and CTN would communicate results with the AAA directly.

As the workflow changes, it is crucial for the service providers to review, update and communicate these changes frequently to their own staff in order to avoid internal and external misunderstandings.

11. Salesforce is the Customer Relationship Management (CRM) software that CTN uses to record and track its services to clients.
Learn as Much as Possible about Individual Learners Prior to Intake

Confirming a learner’s availability and language preferences improves responsiveness to initial intake and training efforts.

Additionally, if we know of a learner’s disability before the device is shipped, certain accessibility features can be turned on to accommodate them.

It is also useful to know whether a learner has had any experience with a tablet, smartphone, or laptop. For learners who have never used technology before, we could suggest that they have a caregiver, family member, or case worker at their side during remote training, which may prove helpful.

Address Fears of, and Ambivalence Towards, Technology During the Initial Outreach

The internet can seem daunting to someone who has never used it. The person may have fear of the unknown, fear of “breaking something,” or privacy and security concerns.

From his experience as an instructor, Schutt says, “Many new learners have a trepidation about technology, so learning how best to help them overcome that fear is often a really challenging aspect.”

Park adds, “I occasionally met older adults who lacked the motivation to learn. Some of them expressed that they were too old to acquire new digital literacy skills. Encouraging and motivating them to embrace learning was undoubtedly one of the most challenging aspects of my role.”

Personal connections with instructors and AAA staff prior to receiving the devices increased the likelihood of participation.

Accurate and Frequent Data Collection is Critical

CTN utilized a shared Google Spreadsheet to assign learners and confirm mailing addresses for the booklets. Upon making initial contact with a participant, the instructors completed an online form which created a client record in our Salesforce database.

Subsequent contact with the learner for training, Q&A sessions, and connectivity advice were also entered in an online form that would automatically update the learner’s contact record in Salesforce based on their most recent activities.

One of the key components of this program was reporting on each learner’s journey from beginner to proficient in specific digital skills. Learner reports included skill level assessments from the first and final lessons so that CDA and the referring agencies could understand how many lessons and hours of training each learner needed to independently perform tasks.

When instructors were not able to submit their activity forms in a timely manner, CTN did not have up-to-date information about the learner’s journey. However, when Salesforce records are updated accurately and immediately, we can review the data to identify service gaps, reallocate instructors, and accelerate our service delivery overall.

12. See: https://communitytechnetwork.org/blog/addressing-older-adults-fears-of-using-technology/
Partners were also keen to understand if their clients were becoming independent and proficient with their devices. Without direct contact with their referrals, however, the partners relied on regular and complete data collection from CTN. Such transparency into their clients’ learning journey would allow the AAAs to share success stories in order to encourage and support other reluctant learners from their communities.

Ongoing data collection training is critical and internal data report mechanisms must be in place to allow for robust report-outs to partners, as well as for providing necessary support to clients.

**Thoroughly Train All Instructors In Applying For The Affordable Connectivity Program**

Because learners’ complementary data plans were limited, CTN encouraged folks to sign up for the Affordable Connectivity Program, so that they could receive a subsidy to apply to a low-cost internet plan and continue using their devices.

However, we quickly learned that learners are less likely to seek connectivity advice while they are still receiving subsidized data plans. Overall, only a few participants applied for the ACP with the help of our instructors.

Additionally, digital skills instructors are just that: instructors. Many felt unprepared and unequipped to effectively help participants register for the ACP and were reluctant to commit to a process that could be time-consuming and bureaucratic. According to Edamwen, “Digital literacy service providers need to help instructors become comfortable with helping folks navigate the government documents and applications that are part of the ACP process. Not all of our instructors felt ready. Instructors need robust and ongoing support.”

CTN now requires our instructors to undergo CTN’s digitalLIFT training to become Affordable Connectivity Enrollment Specialists and to feel more knowledgeable and confident.

ACP and connectivity support remain a challenging component of CTN’s service delivery.

**6. Conclusion**

Offering digital skills training and iPads with data plans to thousands of older adults and adults with disabilities served as a useful example of how digital inclusion interventions may combat social isolation. Community Tech Network’s implementation of the CHAT program in partnership with California’s Department of Aging highlights the successes and challenges in closing core aspects of the digital divide for those that fall under what the Digital Equity Act of 2021 considers covered populations (i.e. persons who are age 60 or older). Further digital equity interventions will be needed to close the gap for all Californians.

“I see these older adults confidently using their devices and radiating joy from their newfound abilities.”

- Hyewon Park, Korean bilingual instructor

7. Recommendations

CTN recommends that future programs planning to use digital equity interventions to increase social determinants of health (such as reducing social isolation in older adults and adults with disabilities) do the following:

- Confirm program details and process prior to launch, using CTN’s successful Home Connect remote training model for assessing digital skills, delivering remote 1:1 training, and providing connectivity advice;
- allow adequate time for a thorough and complete collaborative program planning process which includes all partners and stakeholders;
- develop robust strategies, training, and ongoing support for data collection throughout the program;
- create thoughtful device distribution strategies and timing with respect for the client;
- emphasize early engagement with referral partners to build trust and confirm roles and responsibilities prior to device distribution; and
- allocate significant funding for planning, evaluation and reporting.

“I wish I knew about programs like this a long time ago. My life would have been a lot easier.” - CHAT program participant
CTN CHAT Impact and Satisfaction Survey

Do you think that CTN training program has enabled you to have more access to health information?

![Pie chart showing 61.5% of respondents answering yes, definitely, 20.5% answering yes, maybe, and 17.9% answering no difference.]

Do you think that CTN training program has enabled you to feel more connected to your friends and families?

![Pie chart showing 69.2% of respondents answering yes, definitely, 20.5% answering yes, maybe, and 10.3% answering no difference.]
How do you rate the overall experience of working with your trainer?

Do you think that CTN training program has enabled you to participate in more classes or community activities?

How likely are you to recommend this program to seniors like yourself?