

The Pragmatic Need for a Digital Equity Declaration

Preface

Hawai'i was not prepared for the first stay-at-home, work-from-home orders triggered by the COVID-19 pandemic. From day one, local government, businesses, educators, and residents felt Hawai'i's vulnerability to the inadequacy of digital infrastructure that we had otherwise taken for granted. Broadband and its related facets of access, literacy, applications like telehealth, remote work and distance learning, and the economy became among the state's most pressing challenges. These challenges are being disproportionately felt by members of rural and socioeconomically disadvantaged communities.

Driven by the urgency to bolster connectivity, over the last 30+ weeks since this initial convening, more than 200 individuals representing wireline and wireless carriers, local, national, and international non-profits, public and private schools, universities, commercial sector, local and state government leaders, and Congressional representatives joined the exploratory conversations -- which would become known as the Broadband Hui.

The Pragmatic View:

1. A Digital Equity Declaration is needed to:
 - a. Define "digital equity" to develop a shared understanding of the issue and desired state;
 - b. Outline the priorities of our community, borne out of thoughtful Hui discussions, by articulating measurable short- and long-term goals to eliminate current and prevent further inequities; and
 - c. Provide guidance to public- and private-sector leaders as they shape policies and programs and identify resources to meet these goals.
2. Overcoming digital inequity is a large task. Setting target dates for our goals provides benchmarks to measure progress and ensures we don't lose sight of their importance.
3. Agreeing on common goals provides direction for the collective to identify monetary and other resources to create programs to eliminate inequity. The resources to support related strategies can come from many sources, including the private sector, foundations, and government programs. These resources can be found incrementally, program by program, year by year.
4. The allocation of the State budget is always difficult, particularly under current circumstances, as the funds available are always less than adequate to address all priorities. Setting state-wide goals, however, to address pressing community issues, such as digital inequity, does not need to be contingent on the immediate availability of resources, which can be identified overtime.
5. Leveraging the strengths of different groups is necessary to more effectively address digital inequity.
6. Preventing the increase of inequity is just as crucial as reducing inequity. It is the purpose of this document to highlight the need to move towards digital equity while also understanding how to enable programs that will stop the increase and reduce existing digital inequity in our communities.

Digital Equity Declaration

PURPOSE OF A STATE DECLARATION

- **A digital equity declaration can set the foundation for collective action among private and public sector partners by providing vision, direction, targets, and benchmarks toward Hawai‘i’s equitable and accessible digital future.**
- Our state can no longer wait to address Hawai‘i’s debilitating digital divide.
- If not quickly addressed, the impacts of digital inequity may become an increasingly significant contributor to a widening socioeconomic gap.
- As a result of COVID-19 pandemic, there has been no greater urgency or time to act than now.
- In November 2020, the Department of Business, Economic Development and Tourism (DBEDT) published the new 2020 Hawai‘i Broadband Strategic Plan, which addresses many of the broadband issues facing Hawai‘i, including its need for additional infrastructure and recommendations for eliminating digital inequity and achieving a greater degree of digital equity.
- In 1824, Kamehameha III, Kauikeaouli, proclaimed, “He aupuni palapala ko‘u (Mine is a kingdom of literacy).” The King’s value toward written language and education resulted in extremely high literacy among Native Hawaiians. Today we find ourselves in a similar situation, where society must adopt a new form of literacy to succeed in the digital age.
- A pivot toward this new form of literacy will empower **Hawai‘i’s** residents to realize their full potential.

ISSUE SYNOPSIS

- “Digital equity” is the condition in which all Hawai‘i’s residents, keiki to kupuna, have the information technology capacity needed to participate fully in our society, democracy and economy, including civics, social and cultural activities, employment, lifelong learning, and access to essential services.
- Digital equity requires ubiquitous and affordable access to broadband and the internet, digital tools, and the knowledge to thrive in an increasingly digital world.
- The “digital divide,” also known as “digital inequity,” has been a pressing community issue for many years now, separating those in rural communities and from socioeconomically disadvantaged circumstances from the rest of modern society.
- Currently, a lack of adequate broadband infrastructure, internet-capable devices, affordable, quality broadband service, and technological know-how creates inequitable digital access.
- Digital infrastructure investments have faced challenges with misinformation within our communities about the effects of these technologies.
- Digital inequity is rapidly emerging through racial, economic, and geographical boundaries, and is amplified among our most vulnerable and underserved populations.

- Ultimately, digital inequity prevents many Hawai'i residents from fully participating in society and from pursuing the same opportunities as their peers.
- According to 2019 American Community Survey data:
 - 55,000 households in Hawai'i (roughly 11.8%) do not have an internet subscription (includes cable, fiber optic, or DSL; a cellular data plan; satellite; or a fixed wireless subscription)
 - 44,198 households (roughly 9.5%) have no internet access at all
 - 7% of households have no computer
- The lack of internet access grows when focusing on certain demographics (also ACS 2019 data):
 - 19.2% of households with an annual income less than \$75k have no internet subscription.
 - 8.7% of Native Hawaiian and other Pacific Islanders are without an internet subscription (compared to 4.6% for Hawai'i's total population). 8.2% of NHPs have no computer in their household (compared to 4% for Hawai'i's total population).
 - 11.6% individuals 65 years and older have no computer in their household.
 - 10.1% of individuals with the educational attainment of less than a high school diploma or equivalent have an internet subscription (compared to 4.6% for Hawai'i's total population). 14.2% of individuals in the same group have no computer in their household (compared to 4% for Hawai'i's total population).
- Families in low-income communities have reported that their low credit scores make them ineligible to access free connectivity programs from telecom companies.
- COVID-19 has created public health and other challenges unimaginable only a year ago, and accelerated issues, like digital inequity, that were once less apparent below the surface of a thriving economy.
- Stay-at-home, work-from-home orders related to COVID-19 have exacerbated the digital divide and made digital connectivity a necessity across all economic sectors and demographics.
- Hawai'i's high unemployment rate during the COVID-19 pandemic has led to families cutting home internet subscriptions to prioritize food and rent expenses.
- The need for social distancing has forced many social functions to occur online. Those without digital connectivity may become socially isolated, spurring loneliness and mental health issues.
- Schools have reported that some families are returning digital devices loaned to them, as a lack of connectivity at home has made the devices ineffective for distance learning.
- We expect the COVID-driven shifts toward digital connectivity to influence perpetual changes in society.
- The pursuit of digital equity has quickly risen in priority across the public and private sectors.
- The Broadband Hui, an informal group of over 200 public and private stakeholders facilitated by DBEDT, Transform Hawai'i Government, and the Economic Development Alliance of Hawai'i has

been meeting weekly since March 2020, convening an array of subject matter experts and other stakeholders to present information and discuss solutions.

- In addition to supporting Hawai'i's economic recovery, digital equity supports Hawai'i's efforts to accomplish many of the United Nations' Sustainable Development Goals, the Hawai'i Community Foundation's CHANGE Framework goals, and the state's Aloha+ Challenge goals.

In the 21st Century, our relationships to health, education, business/economy, government, culture/arts, and each other rely on each individual having the technology tools, internet connectivity and skill sets to engage and participate fully.

Health

There has been a major surge in the utilization of telehealth across the entire health service sector in Hawai'i and the country due to COVID-19 public health measures, including stay at home orders, avoidance of unnecessary disease exposure, and personal protective equipment (PPE) inventory concerns. According to a [University of Hawai'i study](#), only 20.5% of Hawai'i health care providers adopted telehealth prior to the COVID-19 public health emergency. Now, as reported in July 2020 to the Telehealth Hui, a group of Hawai'i telehealth stakeholders, large health systems have had a 50-80% increase in telehealth utilization, with HMSA reporting a 613% increase. Federally Qualified Health Systems and Native Hawaiian Health Systems have also had widespread adoption of telehealth. Some services delivered via video teleconference include teleconsultation with behavioral mental health specialists, primary care, substance abuse group therapy, a range of specialty care, and therapy consultation including physical therapy, occupational therapy, and speech therapy.

[The CDC reports](#) that four in ten American adults avoided medical care because of concerns related to COVID-19. The CDC study further states that the people who most frequently avoid urgent or emergency care are those with disabilities, caregivers, and people with two or more underlying health conditions. While telehealth could facilitate greater access to care, demonstrated by widespread adoption among healthcare providers, telehealth is also limited by existing broadband disparities. Telehealth offers much potential, but only to those who have reliable and affordable broadband connectivity.

Although it is difficult to measure the direct return on investment for telehealth, we can understand the high cost burden of chronic disease and telehealth in improving chronic disease management in the U.S. According to a [Milken Institute report \(2018\)](#) chronic disease, such as diabetes, heart disease, and cancer accounts for \$1.1 trillion and \$3.7 trillion when loss of economic productivity is included. This is significant, as it represents nearly 20 percent of the U.S. GDP. Further, several studies indicate telehealth is associated with improvements in chronic disease management and notable cost savings. Telemedicine was also associated with decreased wait times, decreased travel cost, and loss time from

work for patients. For providers, telehealth reduces patient no shows and reduces administrative overhead. The Milken report states that improved care via telehealth “led to 75% fewer hospitalizations and cost savings of almost \$45,000 per patient per year.”

The Telehealth Hui is working with telemedicine directors and payors to evaluate telehealth utilization and costs during the COVID-19 pandemic in order to better understand the return on investment for telehealth in Hawai‘i.

Education

According to Hawai‘i Department of Education (HIDOE) surveys, 83 percent of secondary students surveyed said they had a home computer they could use for distance learning, while 71 percent said there were sufficient devices in their household per family member to use. Half the students surveyed said they had “quite reliable” internet access. About 22 percent of students surveyed said they participated in distance learning through paper packets, while 83 percent said they did so through online delivery. Furthermore, as shared by the HIDOE in an October information briefing, in quarter one of the 2020-2021 school year, 9 out of 10 students were learning through distance learning (blended or full-virtual).

In a summary of results, DOE noted that fewer Native Hawaiian and Pacific Islander students said there were enough tech devices in their household for each family member to use compared with the student survey results in total. A higher percentage of students from those communities said they were given a school-issued device than students overall. Three-fourths of respondents said they’d prefer digital devices to paper packets for remote learning.

McKinsey & Company estimates COVID-19-related learning losses will directly result in the average K-12 student in the United States losing \$61,000 to \$82,000 in lifetime earnings, which translates into an estimated impact of \$110 billion annual earnings.

The Economic Policy Institute, which has done further research into COVID-19 and student performance, equity, and U.S. education policy, cites that “online learning and teaching shows that they are effective only if students have consistent access to the internet and computers and if teachers have received targeted training and support for online instruction.”¹

¹ Report • By Emma García and Elaine Weiss • September 10. “COVID-19 and Student Performance, Equity, and U.S. Education Policy: Lessons from Pre-Pandemic Research to Inform Relief, Recovery, and Rebuilding.” *Economic Policy Institute*, 10 Sept. 2020, www.epi.org/publication/the-consequences-of-the-covid-19-pandemic-for-education-performance-and-equity-in-the-united-states-what-can-we-learn-from-pre-pandemic-research-to-inform-relief-recovery-and-rebuilding/.

Business/Economy

Business flows between the physical and virtual daily. Digital connectivity coupled with digital literacy that expands Hawai'i's economic opportunities for businesses will be key to our businesses surviving and thriving, and ensure that our residents maximize the benefits of a digital economy.

Connecting people whose mobility is restricted by family, health, or other considerations has enabled them to contribute greatly to their societies, and their societies' economies. For Hawai'i's residents, digital connectivity also provides access to remote jobs across the globe, enabling individuals to find digital work that suits their skills and interests, while continuing to live here. Our digital infrastructure must allow Hawaii's workforce and business to compete with parity for business anywhere in the world. These remote workers bring money into Hawai'i's local economy. Conversely, digital connectivity enables local businesses to access the talent of a global workforce, as needed to support their endeavors.

According to statistics from the U. S. Department of Commerce Bureau of Economic Analysis, the digital economy accounted for 5.1 million jobs or 3.3% of total U.S. employment of 152.1 million jobs. Employees working in the digital economy earned \$132,223 in average annual compensation in 2017, compared to \$68,506 per worker for the total U.S. economy.

Being connected has been especially important during the pandemic. Local businesses that already had an online presence, were able to establish one quickly, or enhanced their presence to attract new consumer audiences to sell goods or services have relied on this connectivity to survive. As we prepare strategies for recovery, connectivity will continue to be a lifeline for all businesses, small, medium or large. When Hawai'i businesses and their employees have the connectivity and skills to participate in the global market, they have a greater opportunity to succeed.

Government

Citizen access to government services when and where needed is an essential component of our democratic system. The COVID-19 pandemic has forced citizens to stay at home and state workers to work from home, increasing the dependence upon a computer and the internet to both access and deliver essential government services such as unemployment insurance, healthcare for the uninsured or under-insured, access to public housing, and access to Supplemental Nutrition Assistance Program (SNAP) benefits. With a growing percentage of the population qualifying for state benefits as the pandemic persists, digital access to government services has become a lifeline for many people.

Fortunately, as the government (local, state, federal) is forced to be more efficient and effective, most internal and external-facing processes are being digitized. For government employees to carry out their responsibilities, and for the public to access essential government services and resources and fully

participate in civic processes, all must have digital connectivity. Government employees must be able to deliver services equally to any citizen, whether through digital or in-person interaction.

Transitioning Hawai'i's government toward more digital systems also has the potential to reduce a variety of costs, such as those related to man-hours, office space, utilities, and travel. Equitable digital access for all, tied to a more digitally accessible government, could also support government revenue collection by making it easier for citizens to pay government fees, fines, and taxes.

Culture/Arts

Culture and arts play an important role in promoting social and economic goals through value setting, development of talent, innovation through unique perspectives, creating community belonging, business opportunities, improving health and wellbeing, delivering essential services, and more. As many cultural and artistic activities shift into digital spaces, digital equity provides access to these benefits and opportunities for all Hawai'i's residents, along with industries like tourism and many Hawai'i businesses that heavily leverage Hawai'i's cultural heritage for branding and customer attraction.

The COVID-19 response demanded an immediate halt in many cultural and artistic activities, such as live music, dance, art shows, festivals, etc. Digital equity also supports Hawai'i's artists, cultural practitioners, and related businesses navigate this difficult time.

Social Connection

One of the most foundational human needs is to be socially connected. Especially during times like these when we cannot be together physically, having the means to talk, see, and connect to others is vital to thriving. Those who are not digitally connected can be left feeling socially isolated and lonely, leading to emotional, mental, and other health issues. Digital equity ensures all in our community can connect with each other and coalesce to contribute to community resilience.

VISION

Within 10 years, all residents in Hawai'i have access to the digital skills and connectivity needed to participate fully in our society and economy, so that they may benefit from lifelong learning, civic engagement, access to essential services, and expanded job opportunities.

GOAL SETTING: FOCUS AREAS

For each of the following areas, a baseline needs to be established. Over time, progress needs to be measured against the baseline to determine if we are meeting our goals.

Funding and other resources will be required to implement many of the listed strategies. The source(s) of such resources will depend on the strategy and may include a combination of public and private contributors.

Strategies may serve multiple goals and are listed under each goal accordingly.

Goal Framework

ACCESS + LITERACY + LIVELIHOODS ----> IMPROVED WELLBEING OF HAWAII'S COMMUNITIES

Broadband Access

- Goal: By 2030, consistent, quality internet access is available to 100% of Hawai'i's residents.
 - Strategy 1: Create a process to enable rapid introduction of community broadband in areas that do not have effective broadband service. This is essential to accelerate the elimination of inequity. (\$: Public-private)
 - Strategy 2: Maintain a broadband mapping service to identify communities that are underserved and disadvantaged by inequitable service. (\$: Public-private)
 - Strategy 3: Create a program to ensure the economically disadvantaged have the tools (hardware and software) needed to have equal access to digital services. For example, getting computers distributed to needy individuals each year. (\$: Public-private)
 - Strategy 4: All government locations open to the public provide free WIFI access. (\$: Public)

Digital Literacy

- Goal 1: By 2023, all Hawai'i's residents will have access to quality training and support to develop the skills to use digital technology to enhance their quality of life.
 - Strategy 1: Establish digital literacy assessment tools. (\$: Public-private)
 - Northstar
 - Flexjobs assessment tool
 - Strategy 2: Integrate digital literacy and computer science in K-12 and higher education. (\$: Public-private)
 - Strategy 3: All Hawai'i State Libraries serve as hubs for digital literacy education for the community. (\$: Public)
- Goal 2: Build a digitally literate workforce for education, health, government, commerce, and culture.
 - Strategy 1: Make workforce training available for digital jobs in various fields (educators, health care providers, public/private sectors). (\$: Public-private)

- Strategy 2: Integrate digital literacy and computer science in K-12 and higher education. (\$: Public-private)

Livelihoods

- “Livelihoods” in this context includes digital access and engagement in the societal systems that our communities depend on, including culture and arts, family and social connectivity, healthcare, business and employment, civics, education, government services, etc.
- Overarching Goal: All Hawai'i residents will be able to seamlessly connect to the digital resources they need to be connected and successful in their everyday life.
- We recognize that the need to implement, expand, and continuously improve digital access to our societal systems stretches across all sectors. The goals below are not an exhaustive list but highlight opportunities to improve digital access in high-impact sectors.
- Government
 - Goal 1: By 2025, all government services available to the public are made accessible online through a single government portal, unless in-person interaction is otherwise necessary.
 - Strategy 1: Development of unified online portal for government services. (\$: Public)
 - Strategy 2: Employee training to deliver services digitally. (\$: Public)
 - Goal 2: By 2025, civic participation, including the ability to provide live oral testimony, is available online for all public hearings of state and county legislative and administrative bodies.
 - Strategy 1: Make the necessary technology available to all relevant government entities that do not already provide online civic participation opportunities. (\$: Public)
 - Strategy 2: Employee training to host online public hearings. (\$: Public)
- Healthcare
 - Goal 1: Affordable and secure access to safe, quality health care is available to all Hawai'i residents via telehealth and in-person.
 - Goal 2: Every health care provider in rural or urban areas should have equal access and know how to effectively use and provide safe, quality, and secure health care services via telehealth.
- Culture and Art
 - Goal: Hawai'i's significant cultural and artistic collections are made available to students and the public online, such that the knowledge, inspiration, identity, and values of Hawai'i's people can continue to be shared with the world.

- FEMA - [Disaster Emergency Communications](#)
- HHS - telehealth programs, various ([Health Resources & Services Administration](#))
- DOE - with FCC, [E-Rate: Universal Service Program for Schools and Libraries](#)
- DOL (older opportunities - webinar from [2018](#))
- Additional COVID relief
- Congressional initiatives with related appropriations

POSSIBLE RELATED PROVISIONS

- Create a permanent government position for a digital equity and broadband coordinator (refer to gov's homelessness coordinator statute as an example: HRS 346-381.5)
- Establishment of Hawai'i Broadband Office (See [HB533 \(2020\)](#))
 - Possibly within HTDC as it has statutory authority to develop projects
- Legislative support of the Hawaii Broadband Strategic Plan
- Cable landing infrastructure - support for Hawai'i Broadband Initiative
- Creation of a broadband infrastructure grant program
 - See [SB2527 \(2020\)](#) - Establishes the broadband infrastructure grant program within DBEDT to award grants to applicants to extend deployment of infrastructure used to provide broadband service to unserved and underserved areas of the State. Effective 7/1/2050. (HD1) (Was not scheduled in FIN)
- Creation of a special fund for Broadband/DE
 - Possibly attached the fund to the department that houses the broadband coordinator position