Digital Navigators and the Device Divide: Community Voices from Seven U.S. Cities

Maribel Martinez

May 2023
Digital Navigators and the Device Divide: Community Voices from Seven U.S. Cities

By Maribel Martinez

Maribel Martinez Consulting, based in Miami, Florida, is a minority woman-owned small business consulting firm working at the intersection of equity and technology. The firm specializes in connecting people to digital spaces through digital equity planning and implementation, educational professional development and technology integration, and digital skills curricula and training for all ages.

The firm’s principal, Maribel Martinez, brings over 25 years of experience in national digital inclusion leadership, nonprofit management, business development, K-12 education management, professional development, and technology integration. For more information, visit maribelmartinezconsulting.com.

CITATION:
ACKNOWLEDGMENTS

Digital Navigators and the Device Divide: Community Voices from Seven U.S. Cities is sponsored by Digitunity, a 501(c)3 nonprofit organization.

The author thanks Digitunity for sponsoring this research study and acknowledges their support and collaboration, especially Scot Henley and Karisa Tashjian, for their assistance with promoting the study and aiding in awareness efforts.
# TABLE OF CONTENTS

1.0 INTRODUCTION  
2.0 BACKGROUND  
   2.1 The Device Divide  
   2.2 Computer Supply & Demand  
   2.3 Digital Navigation as a Strategy  
3.0 PROBLEM  
4.0 DEFINITIONS  
5.0 CONTEXT  
6.0 METHODS  
   6.1 Participant Recruitment  
   6.2 Participants  
   6.3 Interview Research Methods
7.0 ANALYSIS 17
8.0 FINDINGS 17
  8.1 Discussion 19
9.0 REFLECTION 26
10.0 CONCLUSION 27
REFERENCES 28
APPENDIX 1 - PARTICIPANT RECRUITMENT LETTER 30
APPENDIX 2 - PARTICIPANT REGISTRATION FORM 31
APPENDIX 3 - CORE INTERVIEW QUESTIONS 33
APPENDIX 4 - STORIES FROM THE FIELD 34
1.0 INTRODUCTION

Computing devices, such as desktops, laptops, and tablets, are a necessary part of daily life in our modern society. In order for those devices to be useful, they must be connected to home broadband affordably, and people must possess the digital skills necessary to use their devices in personally relevant ways. However, computers and internet access are financially out of reach for millions of people in the United States, especially for those with lower incomes, people of color, people with disabilities, and the older generation. Since the COVID-19 pandemic, there has been steadily increasing support in the United States for the training and deployment of Digital Navigators who are trained to assist community members with acquiring affordable internet and computers, as well as provide digital skills resources and training. Yet their ability to assist clients has become increasingly challenged by a dwindling supply of affordable computing device providers. The purpose of this small-scale qualitative research study was to explore the experiences of Digital Navigators and their computer procurement efforts for asset-limited people, to understand their challenges with obtaining affordable large-screen devices, and to gather insights for how to improve the overall process of affordable device procurement.

2.0 BACKGROUND

The digital divide is the condition that exists where some people are able to access the internet and computing technology and others cannot. The primary reason for people to be unconnected from the internet where digital infrastructure and devices are available is cost. The secondary reason for people to be disconnected from the internet and computing devices is the perceived irrelevance of the internet and computers in daily life.

According to the U.S. Census American Community Survey (2021), there are 124,010,992 million households in the United States. Of those, 8,613,533 million households or about 7% reported not having a home computer. Another 10,793,298 million households or about 9% reported having only a smartphone and no other type of computing device in the home. Combined, approximately 16% of households in the United States are unable to navigate the internet from home on a computing device of their own.
2.1 THE DEVICE DIVIDE

Vogels (2021) reaffirmed that income directly impacts household internet subscription rates and computer ownership. “About four-in-ten adults with lower incomes do not have home broadband services (43%) or a desktop or laptop computer (41%). And a majority of Americans with lower incomes are not tablet owners. By comparison, each of these technologies is nearly ubiquitous among adults in households earning $100,000 or more a year.” With fewer options to access the internet from home, American households with lower incomes are relying on their smartphones to go online. This means they do not go online from their own secure home internet network on a computing device they own. This hampers their ability to live, work, learn, play, and stay healthy in our modern world. Relying on a smartphone as a primary internet access point also increases personal risks such as hacking and identity theft.

To better understand how internet and computer adoption rates have changed in recent years, the U.S. Census American Community Survey (2017) reported that out of 118,825,921 million households, 15,211,847 households or 13% reported having no computer in the home and that 25,279,458 million households or 21% were not subscribed to the internet. Additionally, in 2019 just prior to the COVID-19 pandemic, it was estimated that 163 million households in the U.S. did not have internet access at all or did not have internet with speeds that met the minimum standard of that time - 25 Mbps download, and 3 Mbps upload (Winslow, 2019). For additional context of the digital divide pre-pandemic, Winslow (2019) added that in 2019, 40% of schools lacked broadband and that 60% of healthcare facilities outside of metropolitan areas also lacked broadband.
Bernard (2011) reminds us that while conversations about the digital divide began as far back as the 1990s, and that today an increasing number of people are adopting the internet and computers, the digital divide is actually growing due to the fast pace of technology that is coupled with other longstanding and exacerbating factors (National Transportation and Information Administration, 2022). Atske and Perrin (2021) found that “Black and Hispanic adults in the United States remain less likely than White adults to say they own a traditional computer or have high-speed internet at home,” according to a Pew Research Center survey, for example. Without home broadband access and computers of their own, people of color are also consequently underrepresented in the technology sector where high-wage paying jobs wait to be filled, which is on par with CompTIA data from March 2022, “Black people make up 12% of the U.S. workforce but only 8% of employees in tech jobs,” (CompTIA, 2022).
2.2 COMPUTER SUPPLY & DEMAND

The onset of the COVID-19 pandemic created a sudden and urgent need for many people to work and learn from home, which in turn, “sent demand for personal computers skyward,” (King, 2022). According to King (2022), the supply of computer chips finally surpassed demand as of August 2022, which means that purchasing a computer since the last quarter of 2022 may have become easier in that greater inventory was available as in pre-pandemic levels. This is a sharp turnaround from 2021, when Computer World reported that globally the computer chip supply had dwindled down to only five days worth (Mearian, 2022). This steady upward trend of available computers in stock since beginning in late 2022 signifies that for consumers who are interested and financially able to acquire a laptop computer, the odds of finding the right device for them have improved significantly since 2021.

However, computers remain expensive to make and own, especially in the wake of a global pandemic. Factors such as materials, supply, demand, transportation, and labor all continue to affect an upward trend in the price of computers (Khan, 2022). Business News Daily reports that consumers can expect to pay anywhere between $300 – $3,000 for a new laptop computer and that they can plan for that device to typically last between three to five years (Walter, 2023). This cost range puts today’s technology out of reach for asset-limited people, who are generally disadvantaged on multiple fronts and most in need of digital navigation services.

2.3 DIGITAL NAVIGATION AS A STRATEGY

Since 2020, digital navigation has become a viable strategy to help close the digital divide in the United States but it is not a new concept (Martinez, 2021). The researcher has extensive experience with the concept and practice of digital navigation nationwide, the term for which was coined as recently as 2021. The National Digital Inclusion Alliance defines Digital Navigators as “trusted guides who assist community members in internet adoption and the use of computing devices,” (National Digital Inclusion Alliance, 2023). As such, communities across the country are becoming more and more familiar with the presence of Digital Navigators in places such as nonprofits, libraries, and government
agencies. Digital Navigators have specific knowledge about broadband subscription plans, how to apply for low-cost internet, how to source free and affordable computers, and they are familiar with resources to help people learn relevant computer literacy skills, in addition to teaching digital literacy skills themselves – all at no cost. Yet, the confluence of global supply chain disruptions and rising inflation continues to place computer acquisition out of reach for many people, especially those whose combined household income is less than $25,000 a year, those who identify as people of color, and those with lower educational attainment (National Transportation and Information Administration, 2023).

3.0 PROBLEM

Digital inclusion organizations, advocates, and champions across the country have collectively noted a steady decline in the availability of free and affordable computing devices since 2020, especially those provided by nonprofits. Combined with an increase in demand for free and affordable computers from households with lower incomes, those identifying as persons of color, or people with lower educational attainment, for example, subscribing to an internet plan, even a low-cost one, becomes painful but also pointless without a home computer. The purpose of this small-scale qualitative research study was to explore the experiences of Digital Navigators and their computer procurement efforts for asset-limited people, to understand their challenges with obtaining affordable large-screen devices, and gather insights for how to improve the overall process of affordable device procurement.
4.0 DEFINITIONS

DIGITAL NAVIGATOR

A Digital Navigator is any individual who (1) serves as a trusted guide to community members on affordable internet access and adoption, computing devices, and digital literacy, (2) has received specific training on how to provide application support for low-cost internet access and free or low-cost computers, (3) provides technical support to consumers on broadband services and computing devices, and (4) can support the development of digital skills at a variety of levels to people across the lifespan. In this report, the terms "participants" and "interviewees" also refer to the seven Digital Navigators in this study. The term "client(s)" applies to the community members to whom Digital Navigators provide assistance.

AFFORDABLE

Affordability is relative, but for digital navigation clients a computing device is considered to be affordable if its price point is around $50 or between $1 and $100.00, which is typically well below retail prices for new devices which can start at around $300.00.

LARGE-SCREEN DEVICE

Desktop computers, laptop computers, and tablet devices.

REFURBISHER

A company that receives unwanted computers and restores them to "like new" condition. A refurbisher usually gives away or resells refurbished computers at a reasonable price well below retail to specific people, such as asset-limited families. Refurbishers may require an eligibility process with or without documentation of proof of eligibility to receive a free or low-cost computer based on their mission and/or population served.
5.0 CONTEXT

This qualitative research study was conducted by Maribel Martinez Consulting and commissioned by Digitunity, a national 501(c)3 nonprofit organization who believes device ownership is the heart of digital equity. Their mission is to make computer ownership possible for everyone. Digitunity offered each participant in this study a $25 gift card in appreciation of their time for interviews associated with this study.

6.0 METHODS

The aim of this small scale qualitative research study was to obtain insights about Digital Navigators' experiences with device procurement for asset-limited people. Prior to conducting any research, the purpose of the study and the core interview questions, developed by Maribel Martinez Consulting and reviewed by Digitunity, were shared with participants. Participants were recruited voluntarily online and were informed of the interview structure and of their ability to opt-out at any time. Participants gave verbal consent to being video recorded for the purposes of data collection and transcription, and were assured their identity, likeness, and responses would not be shared with anyone except the researcher.

6.1 PARTICIPANT RECRUITMENT

The purpose of this small-scale qualitative research study was to explore the experiences of Digital Navigators and their computer procurement efforts for asset-limited people, to understand their challenges with obtaining affordable large-screen devices, and gather insights for how to improve the overall process of affordable device procurement. Prior to conducting any research, participants were recruited using a public letter (Appendix 1) announcing the research project that called for volunteer Digital Navigator participants which was posted on targeted digital inclusion listservs and on various social media platforms. The letter was made public in September 2022. Direct emails to targeted digital inclusion nonprofits, champions, and similar organizations working in the digital inclusion
space were also emailed the letter of recruitment, and the letter was also presumably shared across extended digital inclusion networks. The letter called for experienced Digital Navigators from urban, suburban, and rural geographies across the United States to volunteer to provide their opinions during an on-camera interview of up to 60 minutes. A link that led to an online registration form (Appendix 2) permitted registrants to enter their contact information so they could be contacted to schedule their on-camera interviews. Although tracking how many people the public letter reached was not possible, three Twitter posts by Maribel Martinez Consulting containing the project letter and/or the interview registration link were viewed 183 times combined. In all, 22 volunteers submitted their responses to the online registration form and seven Digital Navigators were selected for interviews.
6.1 PARTICIPANTS

All participants provided written and verbal consent to be interviewed on camera and for their interview to be recorded for transcription purposes only. To ensure confidentiality of responses, all participant data remains anonymous. The research was a small-scale study where seven Digital Navigators were interviewed between October 2022 and December 2022. Participants were eligible to be interviewed if they were 18 years or older, and were executing the role of a Digital Navigator in a paid or volunteer capacity on a part-time or full-time basis. Participant selection was prioritized by (1) a participant’s willingness to give an on-camera recorded interview up to 60 minutes in length, and (2) their geographic location. Geographic location was prioritized in the selection process so that a variety of U.S. cities and communities would be represented.

Digital Navigators who were interviewed represented geographic locations of varying population density, including: Alexandria, VA; Bradenton, FL; Denver, CO; Mount Vernon, AL; San Diego, CA; Waukegan, IL; and Westchester County, NY. Of the seven participant geographies, 57% (4) self-described their location as a mid-size city, 29% (2) self-described their location as a suburb, and 14% (1) self-described their location as rural. Figure 1 shows a map with the locations of the anonymous seven interview participants.
Participant Digital Navigators also carried out their role as a Digital Navigator within different contexts. A full-time stand alone Digital Navigator devotes all of their work hours to digital navigation and has no other job duties. A full-time cross-trained Digital Navigator has a main job function other than digital navigation and only devotes part of their work hours to performing the role of a Digital Navigator. A part-time stand-alone Digital Navigator devotes all of their part-time work hours to digital navigation. A part-time cross-trained Digital Navigator has a main job function other than digital navigation and only devotes a portion of their part-time work hours to performing the role of a Digital Navigator. A volunteer Digital Navigator received no compensation for their work as either a part-time or full-time Digital Navigator. Among the seven Digital Navigator participants, 14% (1) self-reported they were a full-time stand alone Digital Navigator, 57% (4) were full-time cross-trained Digital Navigators, and 29% (2) were part-time cross-trained Digital Navigators.
Digital Navigators, whether full-time or part-time, stand-alone or cross-trained, also represented different types of organizations in their community. Among participants, three (43%) were affiliated with a 501(c)3 organization, three (43%) were affiliated with a government agency (one from a public housing authority, one from a city library, and one from a city government entity), and one participant (14%) was affiliated with a public-private partnership. Figure 2 illustrates the breakdown of participants and their sector/primary work location as Digital Navigators.

Figure 2. Digital Navigator Participants’ Work Sectors

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Number of Participant Digital Navigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonprofit</td>
<td>3</td>
</tr>
<tr>
<td>Government</td>
<td>3*</td>
</tr>
<tr>
<td>Public/Private Partnership</td>
<td>1</td>
</tr>
</tbody>
</table>

*one Digital Navigator is based in city government, a second at a public housing authority, and a third at a city library

6.2 INTERVIEW RESEARCH METHODS

Semi-structured on-camera recorded interviews of up to 60 minutes were conducted with seven participants selected from the project letter (Appendix 1) and the interview registration form pool of submissions (Appendix 2). Interview questions were developed
by Maribel Martinez Consulting and submitted to Digitunity for discussion and review. The final list of core questions is found in Appendix 3. The semi-structured interview approach meant that all participants answered the same core questions but the interviews were flexible with follow-up questions and elaboration as appropriate. The interviews explored digital navigation processes, technical assistance, large-screen device procurement efforts and outcomes, as well as recommendations for improving device acquisition to people in need. Interview participants self-reported their experience with digital navigation as a job function between one month and more than five years, where 29% (2) had one to six months of experience, 14% (1) had seven to 11 months of experience, 14% (1) had one to two years of experience, 29% (2) had two to five years of experience, and 14% (1) had more than five years of experience in the role, as seen in Figure 3.

Figure 3. Participant Experience as a Digital Navigator
7.0 ANALYSIS

The participant interviews were conducted online via Google Meet and were recorded using Vimeo where they were locked by the interviewer to prevent any additional views or downloads. Participant interviews were then transcribed electronically using a combination of speech to text software and manual transcription resulting in greater accuracy and more familiarity with the interview data. The interviewer also simultaneously wrote personal notes during each interview. The transcriptions and interviewer personal notes were analyzed using a four-stage coding structure (Rubin & Rubin, 2005). This involved re-reading the transcripts and interviewer personal notes, identifying significant statements, coding the data, then sorting and grouping the data for analysis and interpretation.

8.0 FINDINGS

The research showed that 100% of participants worked with clients on digital navigation, and that Digital Navigators directly addressed the internet, computer, and digital literacy skills needs of their clients through multiple interactions over time. For clients who approached a Digital Navigator with their own new computer for the first time or for those who brought a computer to their appointment, Digital Navigators provided a variety of support and assistance to clients, including unboxing a new computer and helping to set it up, help with basic computer skills such as connecting to WiFi and launching a browser, troubleshooting when a computer stopped working as expected, connecting clients to digital skills training resources or classes, and assistance with specific tasks such as applying for unemployment, building a resume, and completing job applications, among other skills. All participants reported helping clients with basic computer literacy skills and 100% of Digital Navigators also recommended that this type of education support be amplified.

Follow-up questions asked of Digital Navigators revealed that nearly 50% of participants believe it is beneficial for a client to be matched to a device that is right for them from the start, to avoid buyer’s remorse or future intimidation stemming from the type of computer a client acquired which may result in the device sitting idle. This recommendation possibly
indicates that Digital Navigators perceive themselves as well-positioned to support clients with choosing the right large-screen device for them. The data also showed that among other recommendations for the type of support that should be provided to people who newly acquire a computer or already own one, 57% of participants said free, client-driven approaches to digital literacy training that are differentiated (self-paced, adaptive) which include basic troubleshooting and essential internet and computer skills such as navigating websites, forms, and email are critical.

Another finding shed light on Digital Navigators’ experiences with leveraging the Affordable Connectivity Program (ACP) device benefit. When Digital Navigators were asked if they had been able to help a client acquire a computing device through the ACP, 86% (6) said no. One Digital Navigator was able to help three clients purchase computers, but they attributed this to luck that the internet service provider the client had selected had devices in stock to sell at that particular time, which is aligned to earlier discussions about computer supply chain improvements in the last quarter of 2022.

The data also revealed that additional funding was consistently mentioned as a dependency for Digital Navigators who searched for free devices for their neediest clients. The library-based Digital Navigator specifically commented how critical the presence of a nonprofit computer refurbisher was to their city and added, “If [they] weren’t in town, we wouldn’t be able to place devices at all, really.”

1 of 7 (14%) Digital Navigators were able to procure a device through the ACP device benefit

14%
Given the challenges around finding the right computer at the right price for clients, Digital Navigators also have some insights as to whether their clients turn to other sources to buy a computer if a Digital Navigator is unable to help them acquire a free or low-cost one. Two Digital Navigators (29%) indicated their clients do not turn to other sources to obtain a computing device if their Digital Navigator cannot help them. One nonprofit Digital Navigator based their “no” response from a local survey in their city with the same question, and the other Digital Navigator based at a city library responded “no” because they mainly work with homeless, re-entry, and immigrant/refugee/asylee populations who typically have little financial resources to spend on a computer.

By contrast, the data showed that four Digital Navigators indicated that clients did turn to other sources to acquire a computing device, and they added that clients also rely on their smartphone in the interim while clients save up over time to purchase a computer from a retailer, or turn to device lending programs such as those found in libraries until they can purchase their own. Regardless of their ability to pay, it is evident that not only do people representing various socio-economic backgrounds approach Digital Navigators with the desire to obtain a computer, they also recognize the device’s importance in daily life enough to set already limited money aside to save up for one to purchase in the future.

8.1 DISCUSSION

Digital Navigators face increasing challenges with procuring affordable devices for their clients, who are typically people with lower incomes and educational attainment, those who identify as people of color, immigrants/refugees/asylees, people with disabilities, and the older generation. The general public has also faced challenges with purchasing large-screen devices, especially since the onset of the COVID-19 pandemic in 2020 when computer chips and other parts became less available due to supply chain disruptions and consequently, much more expensive. Consumers also encounter a marketplace of abundant computer manufacturers and sellers, which creates overwhelm and decision fatigue for people when deciding to purchase computers simply because the market is saturated with choices (White, 2020). Since 2020, the digital inclusion community, composed mainly of nonprofit organizations working to close the digital divide, has seen a drastic reduction in large-screen computing device providers (some, nonprofits
themselves) whose missions included placing free or low-cost computers in the hands of people who could not otherwise afford one. Some of these nonprofit device providers were once able to ship devices nationally to any individual in need, in addition to working with organizations to ship refurbished devices in bulk. The purpose of this small-scale qualitative research study was to explore the experiences of Digital Navigators and their computer procurement efforts for asset-limited people, to understand their challenges with obtaining affordable large-screen devices, and to gather insights for how to improve the overall process of affordable device procurement.

The rollout of the Affordable Connectivity Program on January 1, 2022, which replaced its predecessor the Emergency Broadband Benefit (EBB), marked a landmark federal investment to accelerate broadband adoption in the U.S. by helping to reduce the cost of monthly home broadband subscriptions through the $14.2 billion Infrastructure Investment and Jobs Act (IIJA). In conjunction with being deemed eligible to participate in the ACP after submitting an application along with proof of eligibility, households also become eligible to make a one-time purchase of a computing device for a copay of up to $50 ($75 for Tribal households). The computer purchase must be made with the same internet service provider the household selects for broadband service.

Digital Navigator interviewees (57%) were in agreement that device supply and procurement were “difficult” with the ACP and they also added that the $50 copay remains unaffordable for their clients even if devices were physically available through their ACP internet service provider. One Digital Navigator commented that they were not interested in promoting the ACP computer discount option because the majority of the devices for sale were tablets. “It’s as much about the keyboard as it is the size of the screen,” said a Digital Navigator based at a nonprofit. “We are not interested in providing tablets as computer solutions,” they added.

“If [they] weren’t in town, we wouldn’t be able to place any devices, really.”

A digital navigation client shops for an affordable computer, photo courtesy of Goodwill Southwest Florida
In the years before the EBB and ACP, Digital Navigators had to rely on other sources for free or low-cost devices for their needy clients. The data indicated that four Digital Navigators or 57% of participants qualified their experience with sourcing computing devices for clients aside from the ACP as “good” or “successful.” Closer examination of the data revealed that despite their agencies serving from only a few hundred clients annually to well into the tens of thousands a year, each of the “successful” Digital Navigators worked at an agency that partnered with a local entity to source computers and collaboratively create a device pipeline for digital navigation clients. Specifically, two nonprofit agencies partnered with local government or private corporations who donated unwanted computers, one government agency partnered with a local nonprofit refurbisher, and one city library partnered with a local nonprofit refurbisher.

Of the three Digital Navigators (43%) who qualified their experiences with sourcing computers for clients as “unsuccessful,” no evidence of local partnerships was evident in the data. Moreover, two of the three Digital Navigators whose experience was “unsuccessful” relied on retailers such as Target and BestBuy to find affordable computers for their clients. The Digital Navigator based at a public-private partnership said that because their agency’s funding is mainly private, they “can’t purchase [computers] for clients,” and they steer clients toward “Xfinity if they’re an Internet Essentials customer” for mainly tablet devices. The remaining “unsuccessful” Digital Navigators reported having a relationship with a local refurbisher, but also added obtaining computers was difficult for clients, as was the qualification process for a free or affordable device. “Sometimes the devices are cheaper through a retailer,” said one “unsuccessful” Digital Navigator based at a nonprofit. It was easier, according to the Digital Navigator, to visit a retail website than to try to apply for a free or refurbished computer which held no guarantees, and was further complicated by long applications and cumbersome eligibility documentation submission requirements.
The process of obtaining a computer for a client could involve a Digital Navigator making phone calls to inquire about stock and eligibility, helping clients complete online applications and submitting proof of eligibility where required, and assisting clients with making online purchases. In the case of Digital Navigators who work with or in libraries to connect clients to loaner devices, they might also be involved with having clients sign device agreements or help them check out devices from a kiosk, for example.

“I would have to be convinced about refurbished devices to refer clients.”

Several key concepts emerged from Digital Navigator interviews in the data when asked about what is working with device procurement in general. Terms such as “partnering,” “refurbishers,” “device pipelines,” and the “COVS Act” were repeatedly mentioned by study participants as positive elements of relatively recent digital inclusion activities that support their work as Digital Navigators, or ones that provide hope for their future ability to obtain devices on behalf of their clients. As previously stated, partnering and refurbishers also emerged as valued pathways for Digital Navigators to leverage for obtaining computers for clients. Device pipelines and the Computers for Veterans and Students Act (COVS Act) are very similar in that both are examples of intentional partnerships aimed at adding second lives to viable unwanted computers for people who cannot afford new ones. Device pipelines create an influx of devices for donation, refurbishment, and distribution, usually from private corporations or the government sector, who replace their computer assets approximately every 3-5 years. The COVS Act also creates a pipeline of devices and ensures that surplus computers go to nonprofit refurbishers “for repair and eventual distribution to schools, veterans, seniors, and other specified populations in need…and to state and local agencies for donation to nonprofit and public entities.” Clearly, by mentioning legislation like the COVS Act, it is evident that Digital Navigators are up to date with policies that affect their digital navigation work, and they are also abreast of practices such as device pipelines and partnerships that may offer potential solutions to the device procurement problem in their area.
**Figure 4. Digital Navigator Recommendations to Improve Device Procurement for Asset-Limited People**

<table>
<thead>
<tr>
<th>Digital Navigator</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Housing Authority</td>
<td>“Funding. Our biggest issue is connectivity. Why would anyone get a computer if they don’t have connectivity?”</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>“Supply. People don’t know they can donate [computers] or where...the community needs to know about [refurbishers].”</td>
</tr>
<tr>
<td>Public-Private Partnership</td>
<td>“The city and the school district need to assess who needs what.”</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>“…education, understanding what computers can do and what they need from the internet in order to make the most of a device. Machines are creating new inequities.”</td>
</tr>
<tr>
<td>City Library</td>
<td>“...handing [LMI people] a computer should be part of signing up for [government] services. Benefits and digital equity should be tied together.”</td>
</tr>
<tr>
<td>City Government</td>
<td>“More funding to purchase devices...a call to action to donate to local refurbishers...assemble a device access working group to build out the [local] refurbishment ecosystem...”</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>“A lower-end new device is better than an old better device. Ask manufacturers to make a $250 commitment to everyone in the country...get social workers to understand digital distress.”</td>
</tr>
</tbody>
</table>
When asked follow-up questions about recommending refurbished computers, three Digital Navigator participants (43%) made negative comments about refurbished devices or did not raise the term “refurbished devices.” One Digital Navigator based at a public-private partnership, stated “I have no idea about refurbished devices,” and another based at a nonprofit said, “I would have to be convinced about refurbished devices to refer clients.” A third Digital Navigator based at a public housing authority did not mention refurbished devices at all during their interview.

All Digital Navigators interviewed directly mention or allude to a leader, a local champion - an individual, group, or organization - that utilizes examples of what is working with affordable device procurement in organizations of similar location, purpose, and size, and takes the necessary steps to lead and/or organize the individuals, groups, or organizations that are essential to creating hyperlocal systems that lead to solutions on the ground. In the absence of a champion, or where hyperlocal processes, systems, or partnerships have not yet emerged or may be in their infancy, each participant made specific recommendations for how to improve the device procurement process for asset-limited people. Their statements are captured in Figure 4.

While the individual statements above are in their nature very different, closer examination of the data sheds light on underlying common key themes that resulted from the interviews, including leadership, education, programs, and partnerships. Moreover, education also stood out for 57% of participants when they were asked to provide recommendations for how to make the process for asset-limited people to obtain a large-screen device. Four of the seven Digital Navigators named consumer education as well as Digital Navigator education as essential elements to making the process of obtaining a computer easier for their clients (Figure 5). Connecting these concepts, is the funding that is needed to start, grow, and expand the very strategies Digital Navigators recommend. However, “...until 2020, .04% of overall philanthropic dollars in the U.S. were invested in digital access,” (Zimmerman, 2022). Co-investment and multi-sector collaboration is needed to support the transformational digital inclusion work that has begun since 2020, and to ensure digital equity, there cannot be a reliance on government funding such as the ACP to close the digital divide.
**Figure 5. Recommendations for How to Make the Process Easier for Asset-Limited People to Obtain Large-Screen Devices**

<table>
<thead>
<tr>
<th>Digital Navigator</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonprofit</td>
<td>“Digital Navigators have to know their tech stuff. Clients have to have an education component.”</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>“Education...how to shop.”</td>
</tr>
<tr>
<td>Public Housing Authority</td>
<td>“I hear consumers telling stories about how they bought the wrong machine...the salesperson tries to get the sale, especially from older folks. Consumers need to know what they need.”</td>
</tr>
<tr>
<td>City Government</td>
<td>“Cost is the biggest barrier but digital navigation is a solid strategy to help people get computers.”</td>
</tr>
</tbody>
</table>

Overlapping programs and services to include digital navigation, simple applications, less documentation of eligibility requirements, and refurbisher-to-individual programs were also raised in the data as ways to simplify the process for how asset-limited people obtain large-screen devices.

Follow up questions created an opportunity to learn anecdotally from Digital Navigators the types of devices clients want, which computers are more popular or sought-after, and which ones are less requested or desired. Among desktops, laptops, and tablets, desktops are the least popular device. Participants report that clients who receive “older, bulky towers with giant monitors” are less satisfied and that new Chromebooks, which seem to be available in surplus, are also less favored by Digital Navigators and consumers because of specific limitations with their operating system, according to the data. PC laptops are by far the most requested device from the general public but for seniors, tablets remain most popular and easier to learn to use.
A cross-trained Digital Navigator helps a client verify eligibility documents for low-cost broadband, photo courtesy of Goodwill Southwest Florida

9.0 REFLECTION

This study offered a unique opportunity to learn from Digital Navigators representing different communities in seven cities across the country, how they perform their role, and the seriousness with which they undertake their duties. For each of them, affordable home broadband connected to a reliable large-screen device one knows how to relevantly use is critical. As one who served as a Digital Navigator, it was gratifying to speak with colleagues and to be able to spotlight their particular challenges with device procurement for asset-limited people, as well as expand upon their digital navigation contexts in the hope that champions and new investments will emerge to ensure that digital equity becomes a reality.

Combined, the seven Digital Navigators interviewed for this research study placed over 1,300 devices in the hands of people who needed them but could otherwise not afford them in 2022. They serve working age adults, ALICE (Asset-Limited Income-Constrained, Employed) women, people experiencing homelessness, immigrants, people of color, public housing residents, citizens in re-entry, refugees, seniors, and students of all ages. Appendix 4 contains personal accounts from the device divide, as told by some of the seven Digital Navigators in this study, when they were asked to reflect on a past experience working with a client to obtain a computing device.
The findings provide insights into the persistent, widening complex problem of acquiring large-screen devices for asset-limited people by Digital Navigators in seven U.S. communities. Device cost and supply are main factors in obtaining a large-screen device. Simply put, Digital Navigators cannot source devices that are not available or are not within their client’s financial reach. Exacerbated by a global pandemic, the rapid pace of technology continues to create a widening chasm between the haves and have-nots. Digital navigation provides a free opportunity for people to access a neutral, trusted guide to help them decide on the right internet subscription plan for their household, the appropriate large-screen device for their lifestyle, and the relevant digital literacy skills to help them navigate innovative and expanding technical tools associated with everyday life in the digital age. Digital Navigator knowledge and experience, along with consumer education and digital literacy training, are important factors to successful device adoption. Despite well-meaning intentions behind the ACP device discount, copayments are still too high for eligible consumers. Policy limitations with purchasing a device only through selected ACP internet service providers render the device portion of the benefit nearly useless to consumers. Alternatives to purchasing a computer through the ACP, including buying a low-cost computer through a retailer or receiving a free or affordable device through a refurbisher, are the options that remain for people whose budgets prevent them from paying between $300 - $3000 for a new laptop. Funding from philanthropic or other sources, especially when investments are made jointly across sectors, could support the work of Digital Navigators based in communities where refurbishers or other affordable options are not yet established. In either case, leadership and cooperation are necessary in order for new device pipelines to become available everywhere, and for consumers and Digital Navigators to be aware of device provider options so they can select quality devices that will meet clients’ needs and last.

The concepts presented in this research study provide an opportunity for further discussion, exploration, and research for communities of every size to better understand local landscapes and possible solutions to the device divide. Investments to explore the possibilities behind, and the viability of, local partnerships as they relate to hyperlocal device ecosystems are critical. Bolstering already energized Digital Navigators with more computer procurement resources to offer clients will narrow the digital divide if, with a willingness to leave no one behind, large-screen devices are affordable, available, and connected.
REFERENCES


CompTIA. (2022, March). Cyberstates: 2022 State of the Tech Workforce by CompTIA. [https://www.cyberstates.org/]


National Telecommunications and Information Administration. (2023). Switched off: Why are one in five U.S. households not online? ntia.gov. [https://ntia.gov/blog/2022/switched-why-are-one-five-us-households-not-online]


APPENDIX 1 - PARTICIPANT RECRUITMENT LETTER

PROJECT ANNOUNCEMENT

8 September 2022

ATTENTION DIGITAL NAVIGATORS - VOLUNTEERS NEEDED

As a Digital Navigator, you have a first-hand look at the digital inclusion needs of residents in your community, including devices. MARIBEL MARTINEZ CONSULTING HAS BEEN RETAINED BY DIGITUNITY to better understand the challenges Digital Navigators face with sourcing affordable or free computers, as well as their successes and recommendations. The information participants provide in this study will be used to help inform Digitunity’s strategy to help close the digital divide by ensuring sustainable community technology ecosystems are present so that everyone who needs a computer has one.

Digitunity is a national 501(c)3 organization who believes device ownership is the heart of digital equity. Possessing a functioning, connected computer and the skills to use it productively is a basic, fundamental need in today’s society. Their mission is to eliminate the technology gap through end with a network of stakeholders and solutions, so that everyone can thrive in a digitally connected society.

To that end, MARIBEL MARTINEZ CONSULTING IS SEEKING EXPERIENCED DIGITAL NAVIGATORS from urban, suburban, and rural geographies in the U.S. who are willing to offer their perspectives and opinions on sourcing computers for their clients during a 30 - 60 minute interview. Interviews will be recorded but not shared with anyone except the interviewer and participants can elect to remain anonymous. Digitunity is offering a $25 gift card for participants in appreciation for their time on this project.

IF YOU ARE AN EXPERIENCED DIGITAL NAVIGATOR AND ARE WILLING TO BE INTERVIEWED FOR THIS PROJECT, PLEASE LET US KNOW USING THIS FORM or direct your questions to maribel@maribelmartinezconsulting.com.
APPENDIX 2 - PARTICIPANT REGISTRATION FORM

Digital Navigator Research Project Interviews

Maribel Martinez Consulting connects people to digital spaces through digital equity planning and implementation, educational professional development and tech integration, and digital skills curricula and training.

We have been retained by Digitunity, a national 501(c)3 organization working to eliminate the technology gap through and with a network of stakeholders and solutions, so that everyone can thrive in a digitally connected society to conduct interviews with experienced Digital Navigators from across the country to better understand the challenges with acquiring free or low-cost computing devices, as well as learn about successes and possible solutions. The information gleaned from the interviews will continue to inform the client’s national strategy to help close the digital divide as well as refine their role in the technology ecosystem.

Interviews will last no longer than 60 minutes via video or teleconference. You may choose to have your responses remain anonymous if you wish. Once your response is recorded, we will be in touch with you to schedule your 1:1 interview at your convenience. Thank you in advance for your willingness to help us with this project. Please email maribel@maribelmartinezconsulting.com with any questions.
**First Name**
Your answer

**Last Name**
Your answer

**Email**
Your answer

**Mobile Number**
Your answer

**Organization (If you are employed by an organization different from the one which hosts your digital navigation activities, please let us know here.)**
Your answer

**City and state where you primarily engage in digital navigation work.**
Your answer

**The area where you primarily engage in digital navigation work is:**
- urban, large city-center, very densely populated (example: New York City)
- urban, small or mid-size city, somewhat densely populated (example: Miami, FL)
- suburb
- rural
- Other:

---

**Participants’ names and cities will be included in the final report. Please let us know if you would like for your interview responses to remain anonymous.**

- Please do not associate my name with my responses. The city where I work is acceptable.
- No, I don’t mind if my name and the city where I work are associated with my responses.

---

**Is there anything else you’d like us to know?**
Your answer

---

**How would you describe your role as a Digital Navigator?**
- Full-time, cross-trained (I have full-time job responsibilities at my org and they also trained me to do digital navigation, which is layered onto my existing job function.)
- Full-time, stand-alone (I have no other job duties to perform other than my digital navigation work.)
- Part-time, cross-trained
- Part-time, stand-alone
- I am a full or part-time volunteer Digital Navigator.
- Other:

---

**How much experience do you have as a Digital Navigator?**
- 0-6 months
- 7 months to 1 year
- Between 1 and 2 years
- Between 2 and 5 years
- More than 5 years
APPENDIX 3 - CORE INTERVIEW QUESTIONS

(Participant name), this interview is being recorded for transcription purposes and will otherwise not be shared.

A. What type of assistance have you provided people who already have devices or newly acquired them?

B. What has been your experience with sourcing desktops, laptops, or tablets for clients who need an affordable or free device?

C. Are clients getting their devices from other sources?

D. Have you been successful procuring devices through the Affordable Connectivity Program?

E. Share an experience where you were able to obtain an affordable or free computer for a client.

F. In your opinion, what is working well with free/affordable device procurement?

G. Do you have any recommendations for how to improve device procurement for asset-limited people?

H. Do you have recommendations for how to make the process easier for asset-limited people to obtain large-screen devices?

I. How many computers have you been able to procure this year for clients?

J. Other comments (open-ended)
APPENDIX 4 - STORIES FROM THE FIELD

"Maria" a Spanish-speaking senior, who wanted to return to the workforce as a TA at an elementary school. She didn't know how to create a resume. She got a computer through Computers to Kids and she got the job.

"I recently started working with an older client who is a CNA who wanted to go back to school to be an LPN. I reached out to STUG (Sarasota Technology Users Group) and worked with her to determine which device is best for her based on what she intended to use the device for. I wrote a letter to STUG, she got the computer, and she worked with me to get it connected to affordable internet, and I helped her set it up.

"Early during COVID, one man who was from India, he had a dual degree in electrical engineering and computer science from a U.S. university. He was lonely because of COVID. He didn't know much about computers because his degrees were from before computers became popular. Eventually, we got him to the point where he was Zooming to learn computers that eventually got him a nonprofit job.

"Single mom who became a citizen, she was in college and when COVID hit, her classes went online, and she would hang out in the library parking lot and use her smartphone for connectivity to her classes and her son would try to do his homework in the car. She will be graduating in the Spring after getting a new computer from the library."
Digital Navigators and the Device Divide: Community Voices from Seven U.S. Cities

maribelmartinezconsulting.com